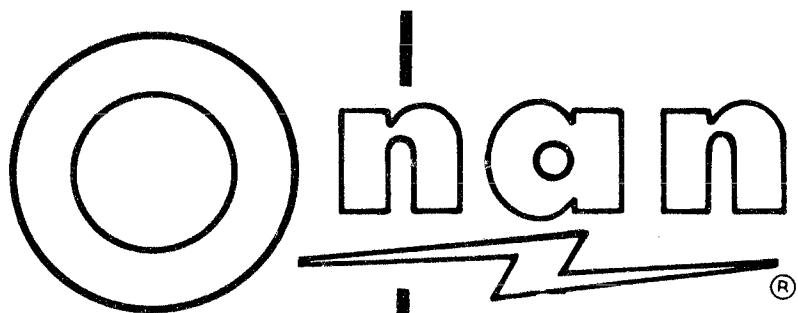


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numbers, or doesn't
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assigns it.

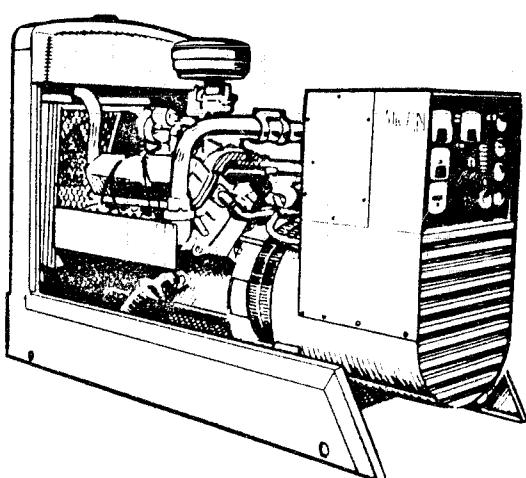


PARTS CATALOG

SERIES

KR

**ELECTRIC GENERATING SETS
BEGIN SPEC T**



A1

ISSUE DATE

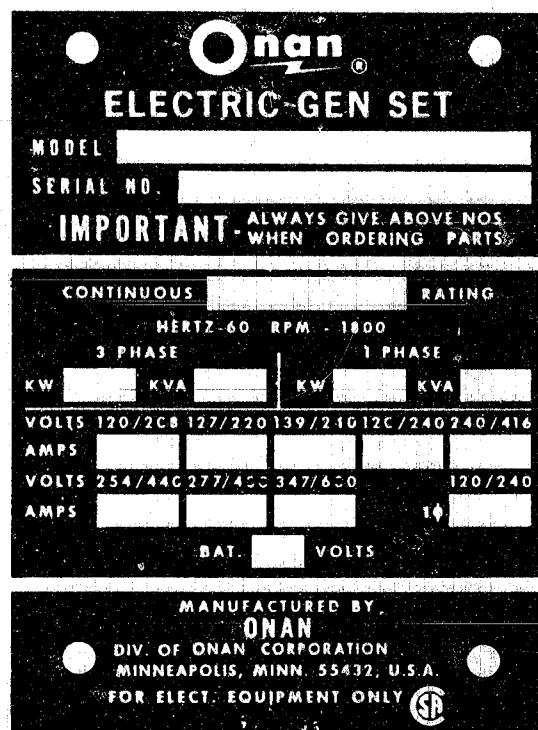
9-79

(BEGIN SPEC T)

INSTRUCTIONS FOR ORDERING REPAIR PARTS

ONAN PARTS

All parts in this list are Onan parts. For parts or service, contact the dealer from whom you purchased this equipment or your nearest authorized service station. To avoid errors or delay in filling your order, please refer to the Onan nameplate and give the complete MODEL, SPECIFICATION and SERIAL number.



INTERNATIONAL HARVESTER PARTS

All International Harvester parts must be ordered from the International Harvester Company, Chicago, Illinois or the nearest International Harvester Construction Equipment distributor or dealer.

Refer to the International Harvester nameplate. When ordering parts or requesting service information supply all information stated on engine nameplate and engine serial number which is stamped on front of cylinder head.



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This catalog applies to the standard Onan KR Series units as listed below. These units are powered by an International Harvester engine (see International Harvester's Manual). Engine parts modified or added by Onan will be in this list and have Onan part numbers. These supersede similar parts listed in the International Harvester manual.

Onan parts are arranged in groups of related items and are identified by a reference. All parts illustrations are typical. Using the Model and Spec No. from the Onan nameplate, select parts that apply to your set MODEL and SPEC NO. This parts represents parts that differ between models. Unless otherwise mentioned, parts are interchangeable. Right and left sides are determined by facing the front end of the engine.

GENERATING SET DATA TABLE

| MODEL & SPEC NO.* | ELECTRICAL DATA | | | |
|---------------------------------|---|-------|-------|------|
| | WATTS | HERTZ | PHASE | WIRE |
| 70.0KR-515R/ | 70,000 | 50 | ** | 12 |
| 70.0KR-15R/ | 70,000 | 60 | ** | 12 |
| 85.0KR-15R/ | 85,000 | 60 | ** | 12 |
| 85.0KR-9XR/ | 85,000 | 60 | 3 | 4 |
| Pennsylvania Approved Models | See Special Parts List Following the Standard Parts List. | | | |

* - The Specification Letter advances (A to B, B to C, etc.) with manufacturing changes.

** - These sets are reconnectable; refer to wiring diagram inside Control Box Cover.

REPLACEMENT ENGINE

100-0855

1

★Engine, Replacement - International Harvester Company Model UV-549.

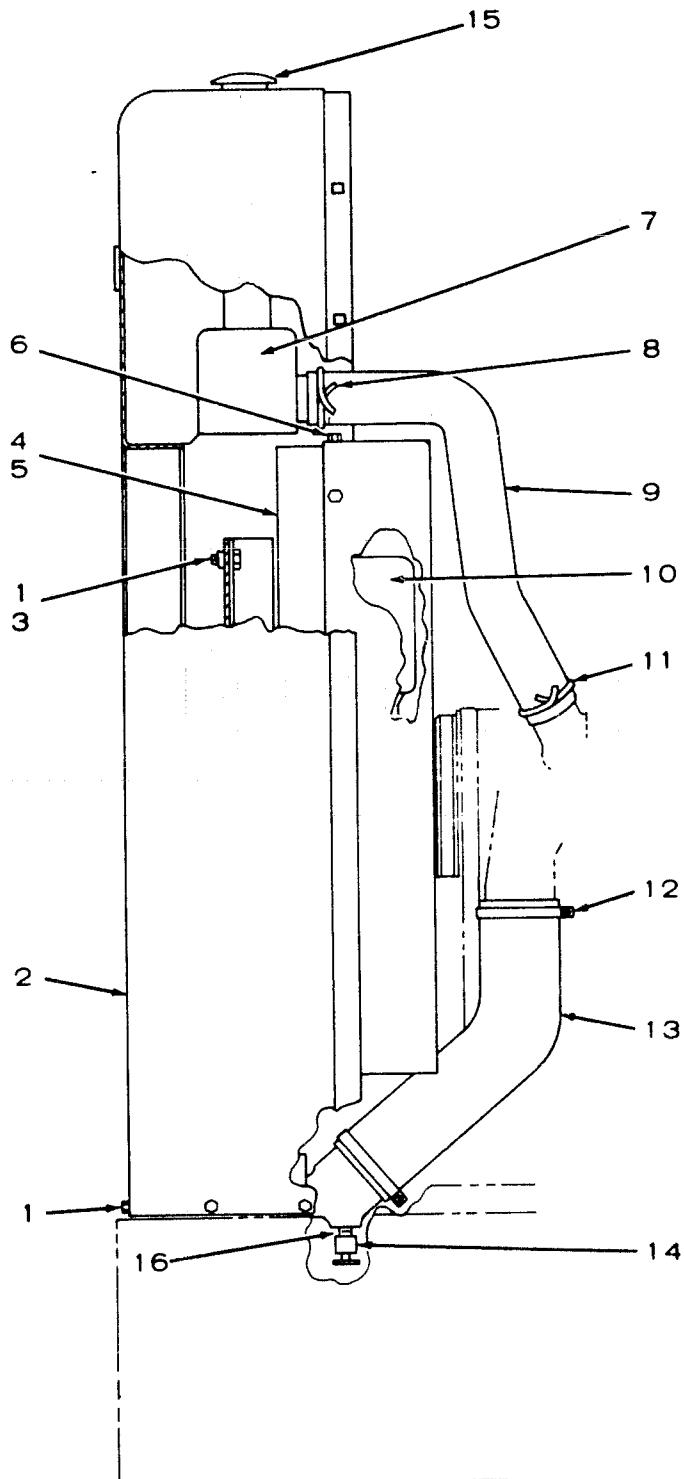
GENERAL DESCRIPTION:

Includes - Complete Cylinder Block, Oil Pan, Water Pump, Oil Filter, Governor, Exhaust Manifolds and Engine Mounts.

Excludes - Carburetor, Fuel Pump, Air Cleaner, Fuel Filter, Starter & Solenoid, Charge Generator, Regulator & Wire Harness, Ignition Coil, Distributor, Spark Plug Leads, Oil Pressure & Water Temperature Gauge Senders, Oil Pressure Switch, High Water Temperature Cut Off Switch, Anti-Dieseling Control, Radiator, Fan Blades & Belt, Exhaust Header, Muffler and Exhaust Tube.

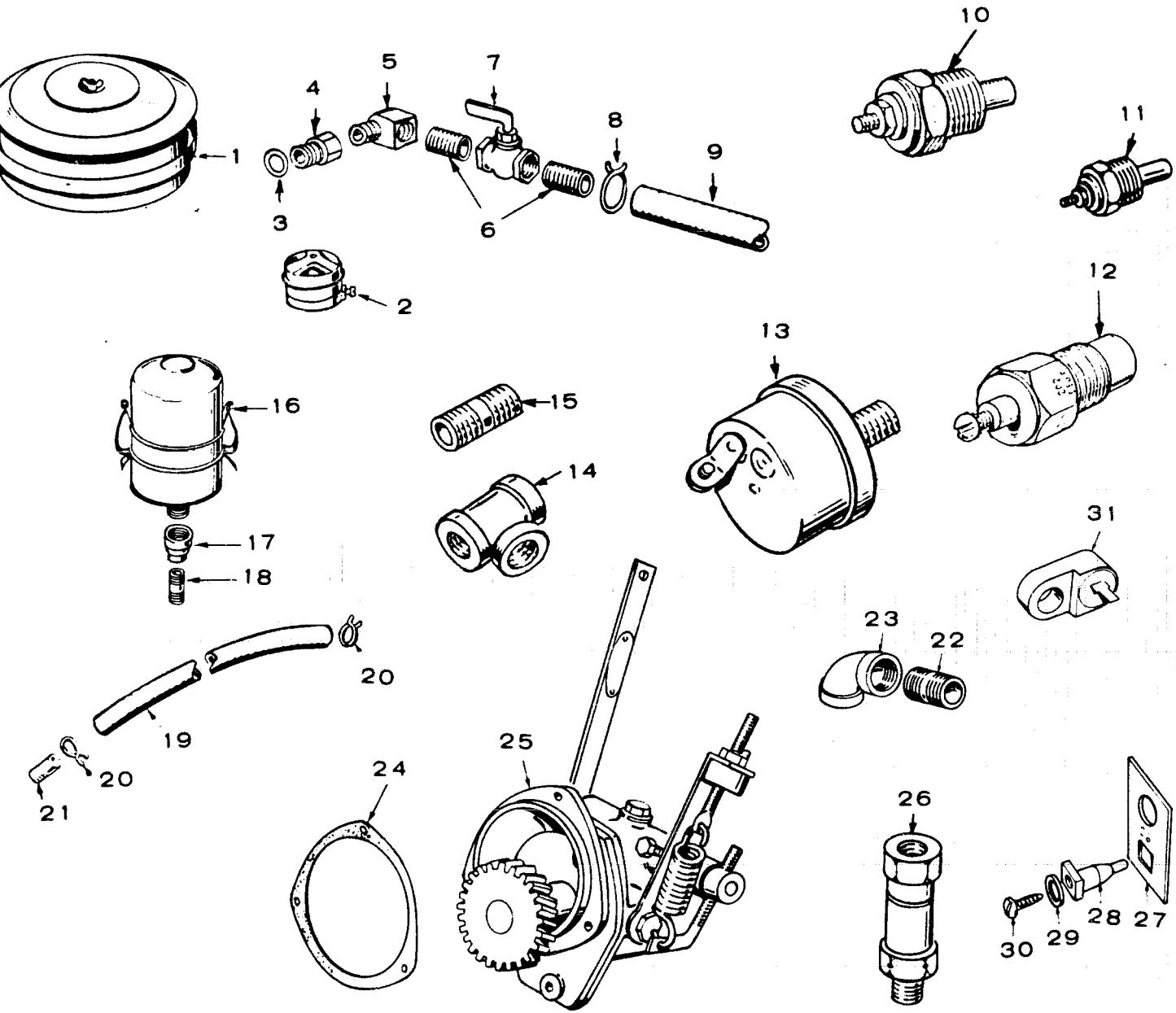
★ - Standard generator set, for all other models refer to factory.

COOLING SYSTEM



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|--|
| 1 | 821-0014 | 16 | Screw, Cap - Locking Head (5/16-18 x 1/2") |
| 2 | 405-1153 | 1 | Panel, Front Housing |
| 3 | 870-0114 | 8 | Nut, Retainer (5/16-18) |
| 4 | 130-0433 | 1 | Guard, Fan (R/H) |
| 5 | 130-0434 | 1 | Guard, Fan (L/H) |
| 6 | 821-0010 | 10 | Screw, Cap - Locking Head (1/4-20 x 1/2") |
| 7 | 130-0429 | 1 | Radiator (Includes Cap) |
| 8 | 503-0311 | 2 | Clamp, Hose |
| 9 | 503-0332 | 2 | Hose, Radiator - Upper |
| 10 | 130-0428 | 1 | Fan Blade |
| 11 | 503-0365 | 2 | Clamp, Hose |
| 12 | 503-0354 | 2 | Clamp, Hose |
| 13 | 185-1005 | 1 | Hose, Radiator - Lower |
| 14 | 504-0028 | 1 | Cock, Drain |
| 15 | 130-0449 | 1 | Cap, Radiator |
| 16 | 505-0019 | 1 | Bushing, Drain Cock |

MISCELLANEOUS ENGINE PARTS

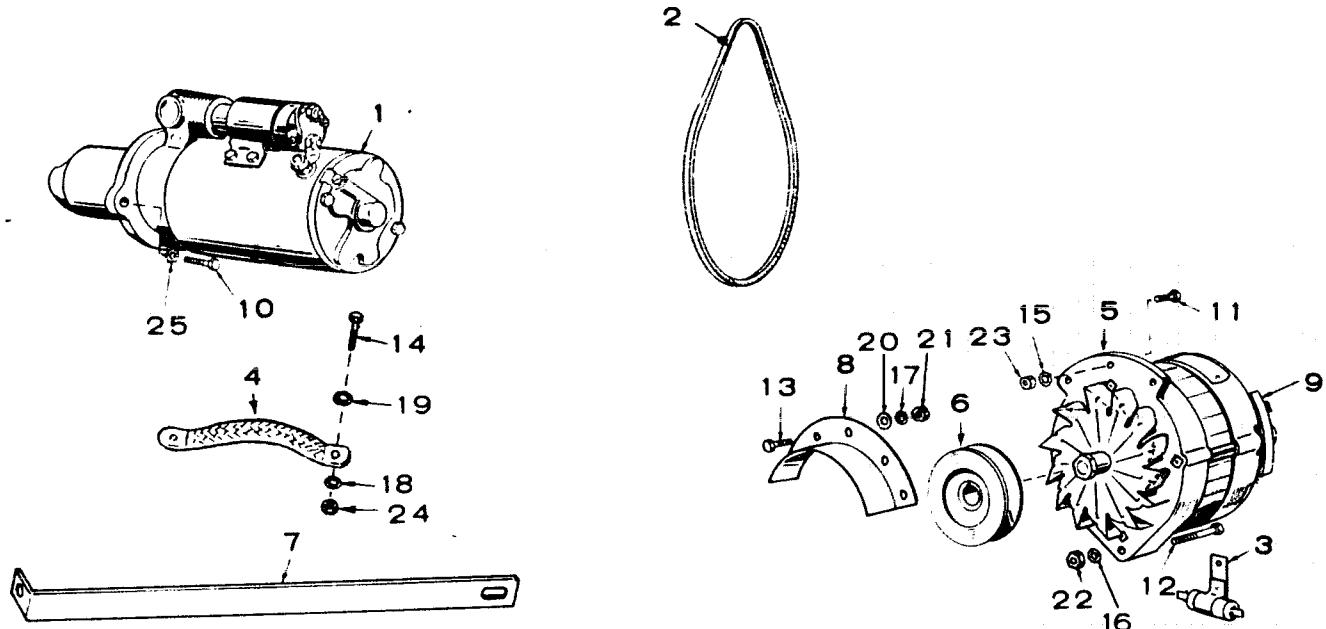


MISCELLANEOUS ENGINE PARTS

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|--|
| 1 | 140-0524 | 1 | Cleaner, Air | 22 | 505-0099 | 1 | Nipple, Close - Breather Hose Adapter |
| 2 | 140-0525 | 1 | Adapter, Air Cleaner | 23 | 505-0038 | 1 | Elbow, Breather Hose Adapter |
| 3 | 102-0034 | 1 | Gasket, Oil Drain Adapter | 24 | 151-0387 | 1 | Gasket, Governor Flange |
| 4 | 102-0033 | 1 | Adapter, Oil Drain | 25 | 151-0371 | 1 | *Governor Assembly (International Harvester No. 678045C91) |
| 5 | 502-0133 | 1 | Elbow, Oil Drain | 26 | 123-0960 | 1 | Vent, Crankcase |
| 6 | 505-0100 | 2 | Nipple, Oil Drain | 27 | 332-1281 | 1 | Bracket, Terminal Mounting |
| 7 | 504-0011 | 1 | Valve, Oil Drain Shut Off | 28 | 870-0196 | 1 | Nut, Insulator |
| 8 | 503-0197 | 1 | Clamp, Oil Drain Hose | 29 | 508-0015 | 1 | Washer, Insulator |
| 9 | 503-0098 | 1 | Hose, Oil Drain | 30 | 809-0035 | 1 | Screw, Sheet Metal - Roundhead (#8 x 3/4") |
| 10 | 193-0244 | 1 | Sender, Oil Pressure | 31 | 309-0269 | 1 | Switch, Low Engine Temperature |
| 11 | 193-0246 | 1 | Sender, Water Temperature | 32 | 520-0599 | 2 | Stud, Exhaust Elbow |
| 12 | 309-0178 | 1 | Switch, Water Temperature | 33 | 155-0612 | 1 | Header, Exhaust |
| 13 | 309-0169 | 1 | Switch, Oil Pressure | 34 | 133-0157 | 2 | Shield, Exhaust Manifold Heat |
| 14 | 505-0059 | 1 | Tee, Pipe | | | | |
| 15 | 505-0104 | 1 | Nipple, Close | | | | |
| 16 | 140-0518 | 1 | Cleaner, Crankcase Breather | | | | |
| 17 | 505-0369 | 1 | Coupling, Reducer | | | | |
| 18 | 505-0099 | 1 | Nipple, Close | | | | |
| 19 | 503-0445 | 1 | Hose, Breather | | | | |
| 20 | 503-0131 | 2 | Clamp, Breather Hose | | | | |
| 21 | 505-0010 | 1 | Nipple, Half - Breather Hose Adapter | | | | |

* - Order Parts or Components for this Governor
(International Harvester #678045C91) from the
International Harvester Company, 401 North
Michigan Avenue, Chicago, Illinois 60611

STARTER AND ALTERNATOR



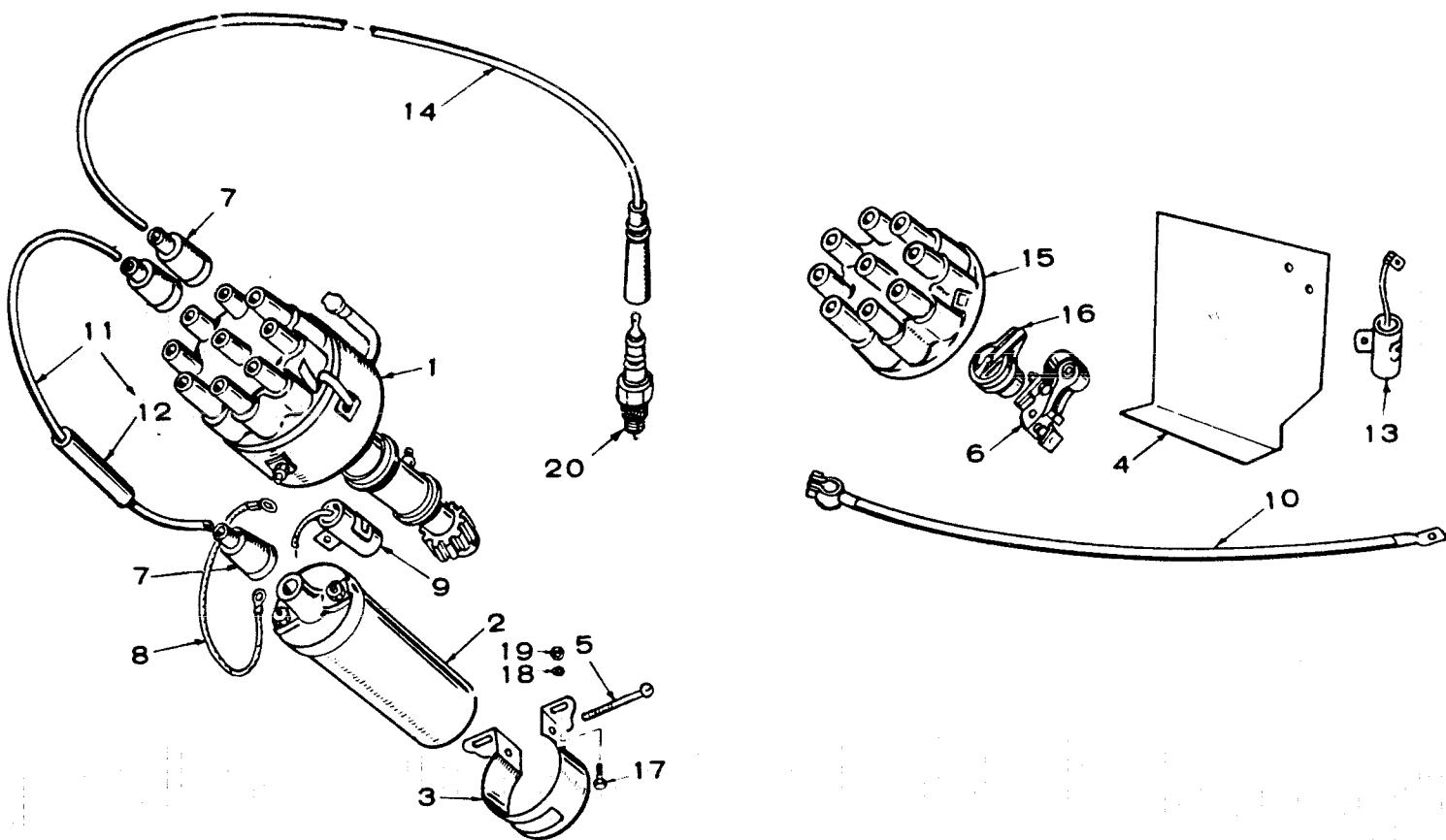
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------------------|----------|-----------|---|
| 1 | 191-0486 | 1 | *Motor, Starting (12 Volt) (Delco Remy #1113167-H) |
| 2 | 511-0025 | 1 | Belt, Alternator Drive |
| 3 | 312-0201 | 1 | Condenser - Charge Alternator |
| 4 | 337-0090 | 2 | Strap, Ground (8-7/16") |
| 5 | 191-0665 | 1 | **Alternator, Charge (Includes Regulator) - Motorola #70D44039B |
| 6 | 191-0649 | 1 | Pulley, Alternator |
| 7 | 191-0678 | 1 | Brace, Alternator Mounting |
| 8 | 191-0725 | 1 | Guard, Alternator Belt |
| 9 | 191-0732 | 1 | Regulator, Alternator (Part of Alternator) |
| SCREW, CAP, HEX HEAD | | | |
| 10 | 800-0051 | 2 | Starter Motor Mounting (3/8-16 x 1-1/4") |
| 11 | 800-0050 | 3 | Alternator Mounting (3/8-16 x 1-1/4") |
| 12 | 800-0095 | 1 | Alternator Mounting (1/2-13 x 2-1/4") |
| 13 | 800-0025 | 6 | Alternator Guard Mounting (5/16-18 x 3/4") |
| 14 | 800-0091 | 1 | Ground Strap Mounting (1/2-13 x 1-1/4") |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|--|
| | | | WASHER, LOCK-SPRING |
| 15 | 850-0050 | 3 | Alternator Mounting (3/8") |
| 16 | 850-0060 | 1 | Alternator Mounting (1/2") |
| 17 | 850-0045 | 6 | Alternator Guard Mounting (5/16") |
| 18 | 856-0013 | 1 | Ground Strap Mounting (1/2") EIT |
| 19 | 850-0060 | 1 | Ground Strap Mounting (1/2") |
| 20 | 526-0115 | 6 | Washer, Flat - Alternator Guard Mounting (11/32" ID x 11/16" OD x 1/16" Thk) |
| 21 | 862-0015 | 6 | NUT, HEX Alternator Guard Mounting (5/16-18) |
| 22 | 862-0005 | 1 | Alternator Mounting (1/2-13") |
| 23 | 862-0003 | 3 | Alternator Mounting (3/8-16") |
| 24 | 862-0016 | 1 | Ground Strap Mounting (1/2-13") |
| 25 | 856-0010 | 2 | Washer, Shakeproof - Starter Motor Mounting (3/8") |

* - For components contact your nearest Delco Remy dealer or Delco Remy Div. of General Motors Corp., Anderson, Indiana 46011.

** - For components contact your nearest Motorola dealer or Motorola Automotive Products Inc., 9401 W. Grand Avenue, Franklin Park, Illinois 60131.

IGNITION SYSTEM

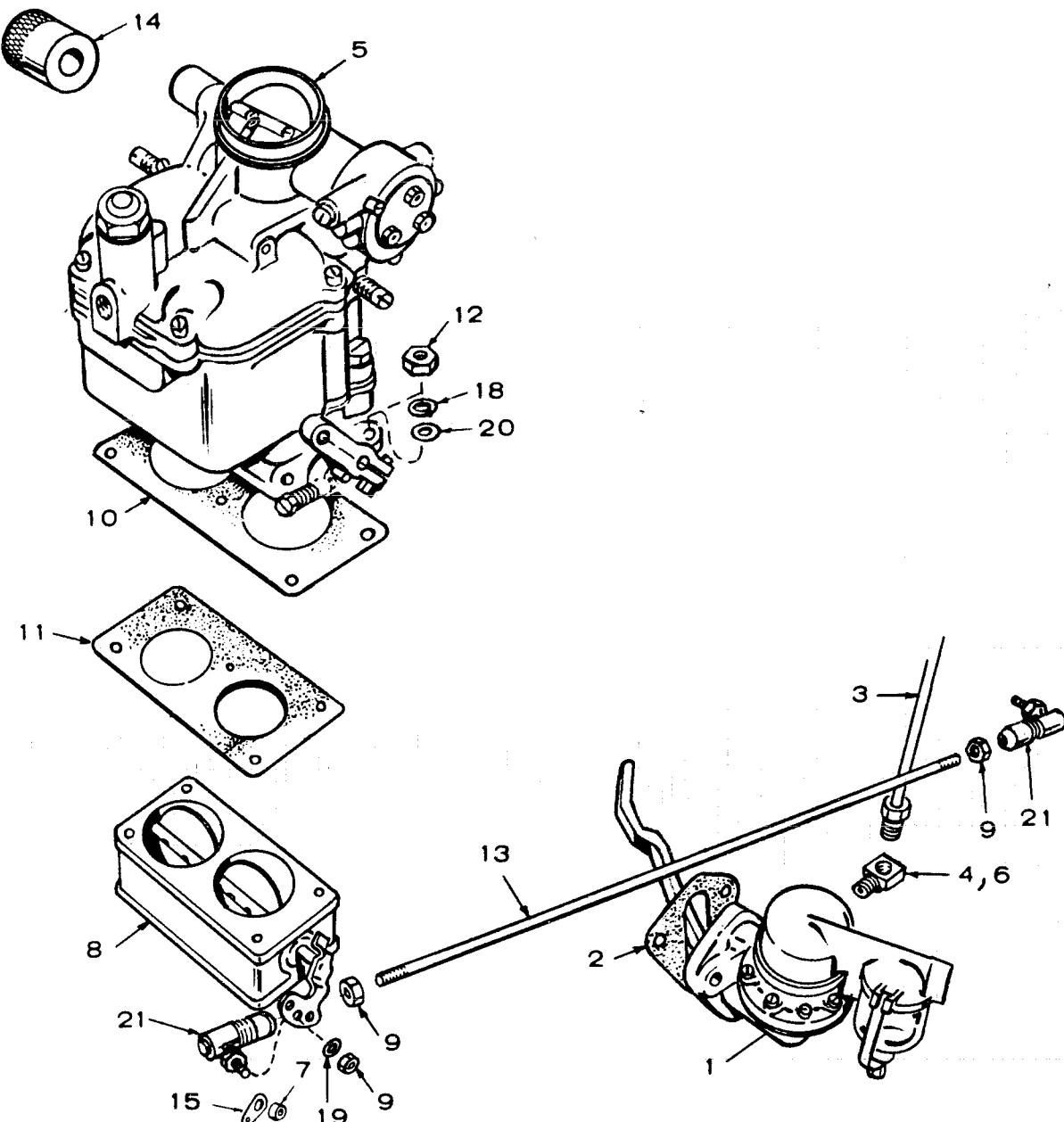


| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------------|-----------|---|
| 1 | 166-0282 | 1 | *Distributor Assembly (Delco Remy #1110625) |
| 2 | 166-0278 | 1 | Coil, Ignition (12 Volt) |
| 3 | 166-0279 | 1 | Bracket, Coil Mounting |
| 4 | 133-0158 | 1 | Shield, Ignition Coil Heat |
| 5 | 166-0286 | 1 | Screw, Oil Bracket |
| 6 | 166-0321 | 1 | Point Set, Breaker |
| 7 | 160-0558 | 10 | Nipple, Rubber (9) Distributor, (1) Ignition Coil |
| 8 | 336-0332 | 1 | Lead, Ignition Coil |
| 9 | 312-0058 | 1 | Condenser, Ignition Coil (0.1 Mfd) |
| 10 | CABLE, BATTERY | | |
| | 416-0643 | 1 | 28-1/4" Long |
| | 416-0021 | 1 | 20-1/2" Long |
| 11 | 167-1528 | 1 | Cable, Distributor (Includes Suppressor) |
| 12 | 314-0006 | 1 | Suppressor, Distributor |
| 13 | 166-0320 | 1 | Condenser, Distributor |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|-------------------|-----------|---|
| 14 | CABLE, SPARK PLUG | | |
| | 167-1332 | 1 | Cylinder No. 1 |
| | 167-1333 | 1 | Cylinder No. 2 |
| | 167-1334 | 1 | Cylinder No. 3 |
| | 167-1337 | 1 | Cylinder No. 4 |
| | 167-1335 | 1 | Cylinder No. 5 |
| | 167-1336 | 1 | Cylinder No. 6 |
| | 167-1338 | 1 | Cylinder No. 7 |
| | 167-1339 | 1 | Cylinder No. 8 |
| 15 | 166-0318 | 1 | Cap, Distributor |
| 16 | 166-0319 | 1 | Rotor, Distributor |
| 17 | 800-0026 | 2 | Screw, Cap - Hex Head (5/16-18 x 3/4") |
| | 18 | 2 | Washer, Lock - Spring (5/16") |
| | 19 | 2 | Nut, Hex |
| | 20 | 8 | Plug, Spark |

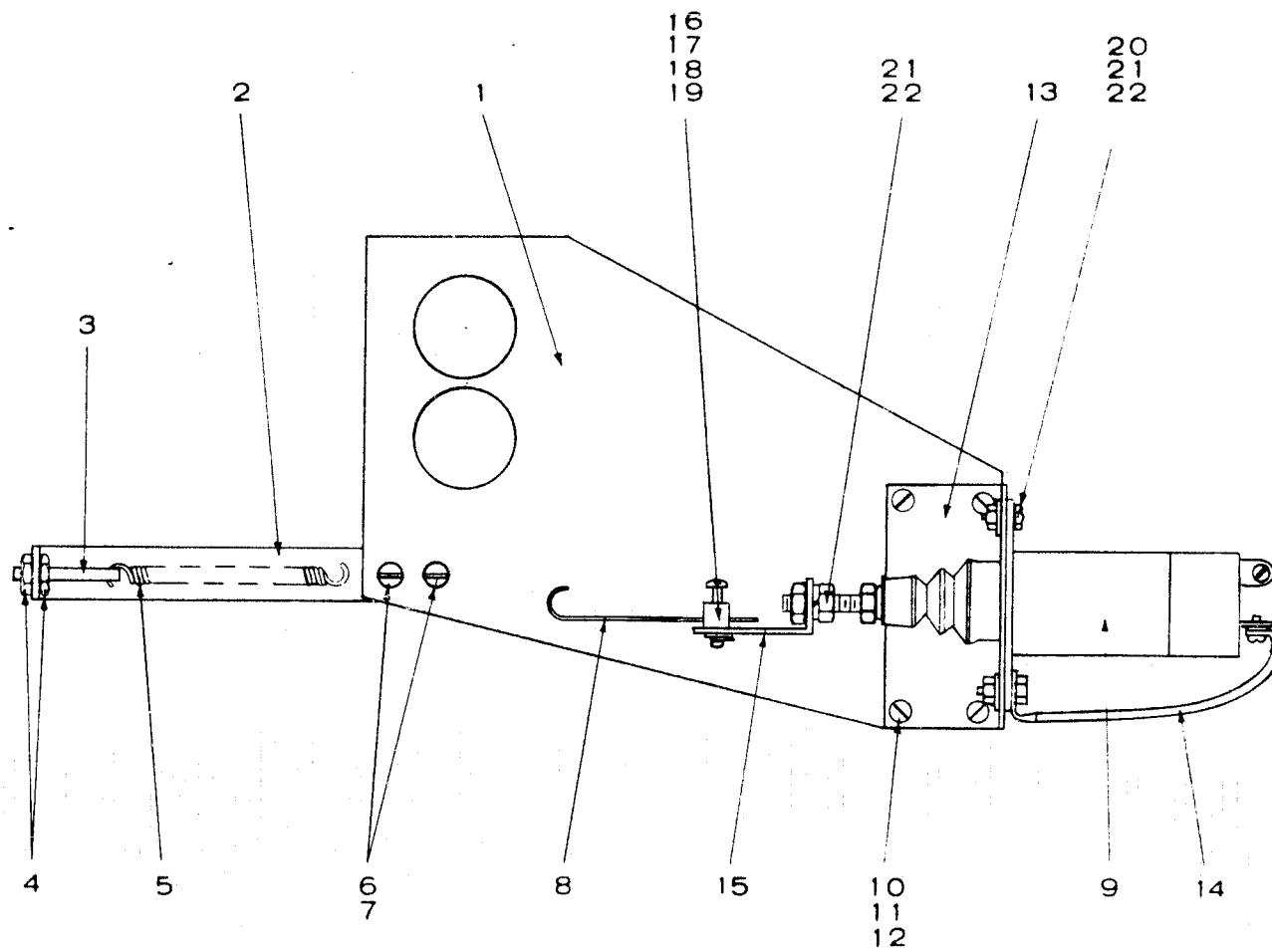
* - For components not listed, contact your nearest Delco Remy dealer or Delco Remy Division of General Motors Corp., Anderson, Indiana 46011.

FUEL SYSTEM



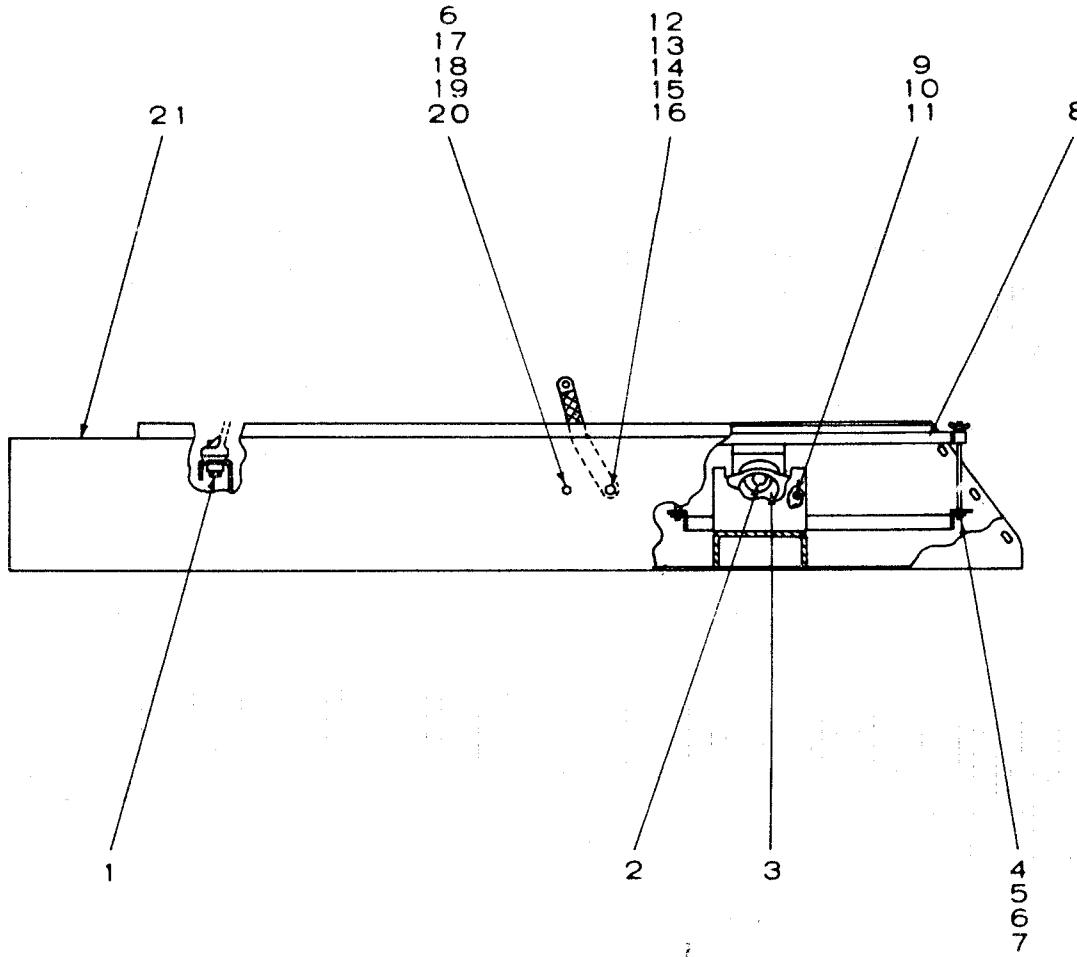
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|---|---|----------|-----------|---|
| 1 | 149-0730 | 1 | Pump, Fuel (Includes Mounting Gasket) | 13 | 520-0517 | 1 | †Stud, Governor Control |
| 2 | 149-0736 | 1 | Gasket, Fuel Pump Mounting | 14 | 141-0372 | 1 | Knob, Choke |
| 3 | 159-0685 | 1 | Line, Fuel Pump to Carburetor | 15 | 145-0414 | 1 | Link, Throttle Spring |
| 4 | 502-0004 | 1 | Elbow, Inverted Male - Fuel Pump Outlet | 16 | 813-0148 | 1 | Screw, Machine - Roundhead (1/4-28 x 1/2") |
| 5 | 141-0635 | 1 | *Carburetor (Includes Mounting Gaskets) (ZENITH #12411A) | 17 | 526-0018 | 2 | Washer, Flat (17/64" ID x 5/8" OD x 1/16" Thk) |
| 6 | 502-0004 | 1 | Elbow, Male - Carburetor Inlet | 18 | 850-0045 | 4 | Washer, Lock - Spring - Carburetor Mounting (5/16") |
| 7 | 150-0302 | 1 | Bushing, Throttle Spring | 19 | 850-0040 | 2 | †Washer, Lock - Spring - Ball Joint (1/4") |
| 8 | 145-0410 | 1 | Body Assembly, Throttle (Includes Parts Marked †) | 20 | 526-0115 | 4 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) |
| 9 | 115-0025 | 4 | †Nut, Hex (1/4-28) (2) Governor Control Stud (2) Ball Joint | 21 | 150-0638 | 2 | †Joint, Ball |
| 10 | 145-0189 | 1 | Gasket, Carburetor Mounting | | 141-0640 | 1 | Repair Kit, Carburetor |
| 11 | 145-0185 | 1 | Gasket, Throttle Body Mounting | | 141-0641 | 1 | Gasket Kit, Carburetor |
| 12 | 110-0445 | 4 | Nut, Hex - Carburetor Mounting (5/16-24) | † - Parts Included in 145-0410 Throttle Body Assembly. | | | |
| | | | | * - For Components contact your nearest ZENITH Carburetor Dealer or ZENITH Carburetor Division, The Bendix Corporation, 696 Hart Avenue, Detroit, Michigan. | | | |

ANTI DIESELING SYSTEM



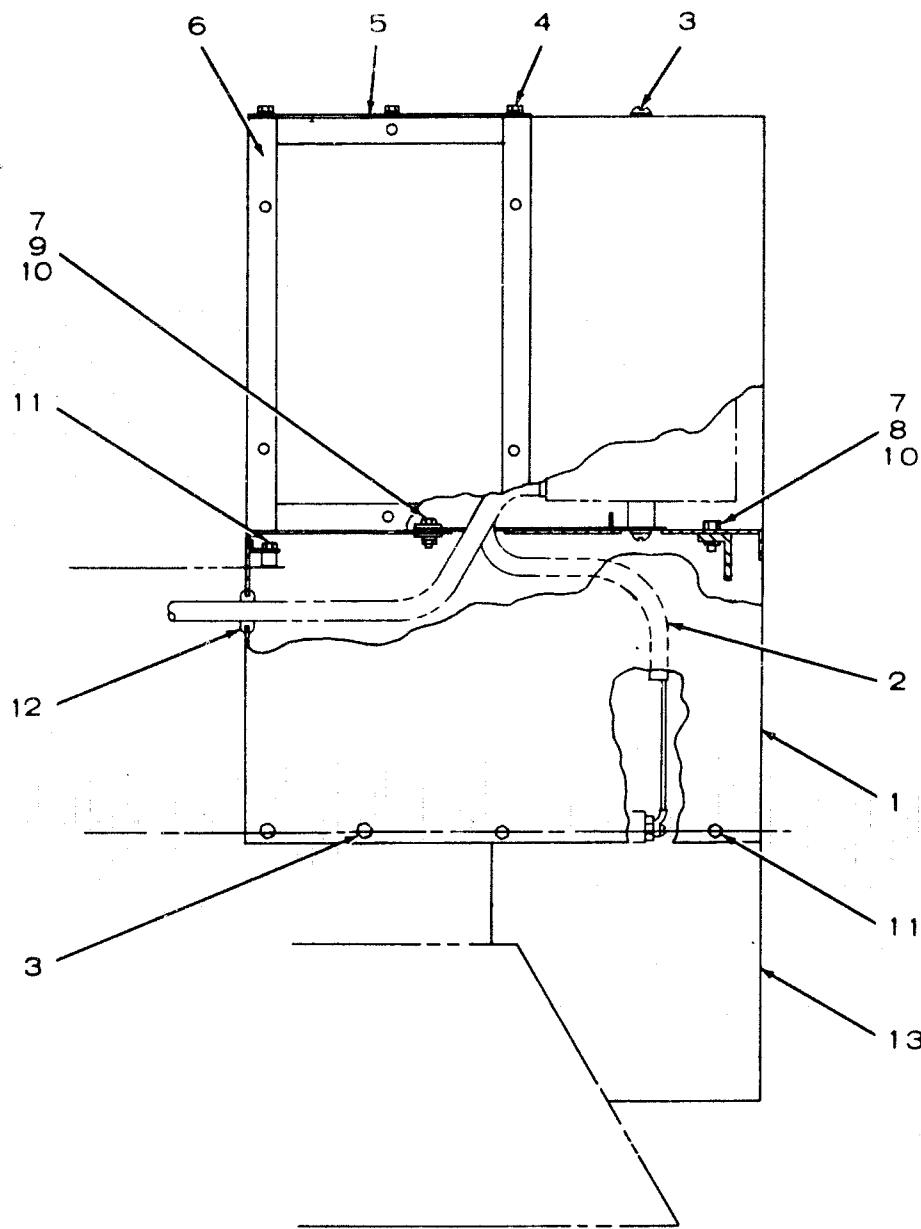
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|---|
| 1 | 145-0186 | 1 | Bracket, Anti Dieseling Mounting | 12 | 860-0008 | 4 | Nut, Hex (#8-32) |
| 2 | 145-0187 | 1 | Bracket, Throttle Spring | 13 | 307-1323 | 1 | Bracket, Solenoid Mounting |
| 3 | 150-0096 | 1 | Stud, Governor Adjusting | 14 | 336-0332 | 1 | Lead, Ground |
| 4 | 870-0053 | 2 | Nut, Hex (#10-32) | 15 | 307-1330 | 1 | Bracket, Solenoid |
| 5 | 145-0158 | 1 | Spring, Throttle | 16 | 152-0155 | 1 | Swivel, Choke Lever |
| 6 | 813-0100 | 2 | Screw, Machine - Roundhead (#10-32 x 1/2") | 17 | 526-0006 | 2 | Washer, Flat (15/64" ID x 1/2" OD x 3/64" Thk) |
| 7 | 870-0131 | 2 | Nut, Hex W/ET (#10-32) | 18 | 516-0059 | 1 | Pin, Cotter |
| 8 | 145-0436 | 1 | Link, Solenoid | 19 | 815-0104 | 1 | Screw, Machine - Fillister (#8-32 x 5/16") |
| 9 | 307-1356 | 1 | Solenoid, Anti Dieseling | 20 | 800-0003 | 2 | Screw, Cap - Hex Head (1/4-20 x 1/2") |
| 10 | 812-0079 | 4 | Screw, Machine - Roundhead (#8-32 x 1/2") | 21 | 850-0060 | 3 | Washer, Lock - Spring (1/4") |
| 11 | 850-0025 | 4 | Washer, Lock - Spring (#8) | 22 | 862-0001 | 2 | Nut, Hex (1/4-20) |

CHASSIS



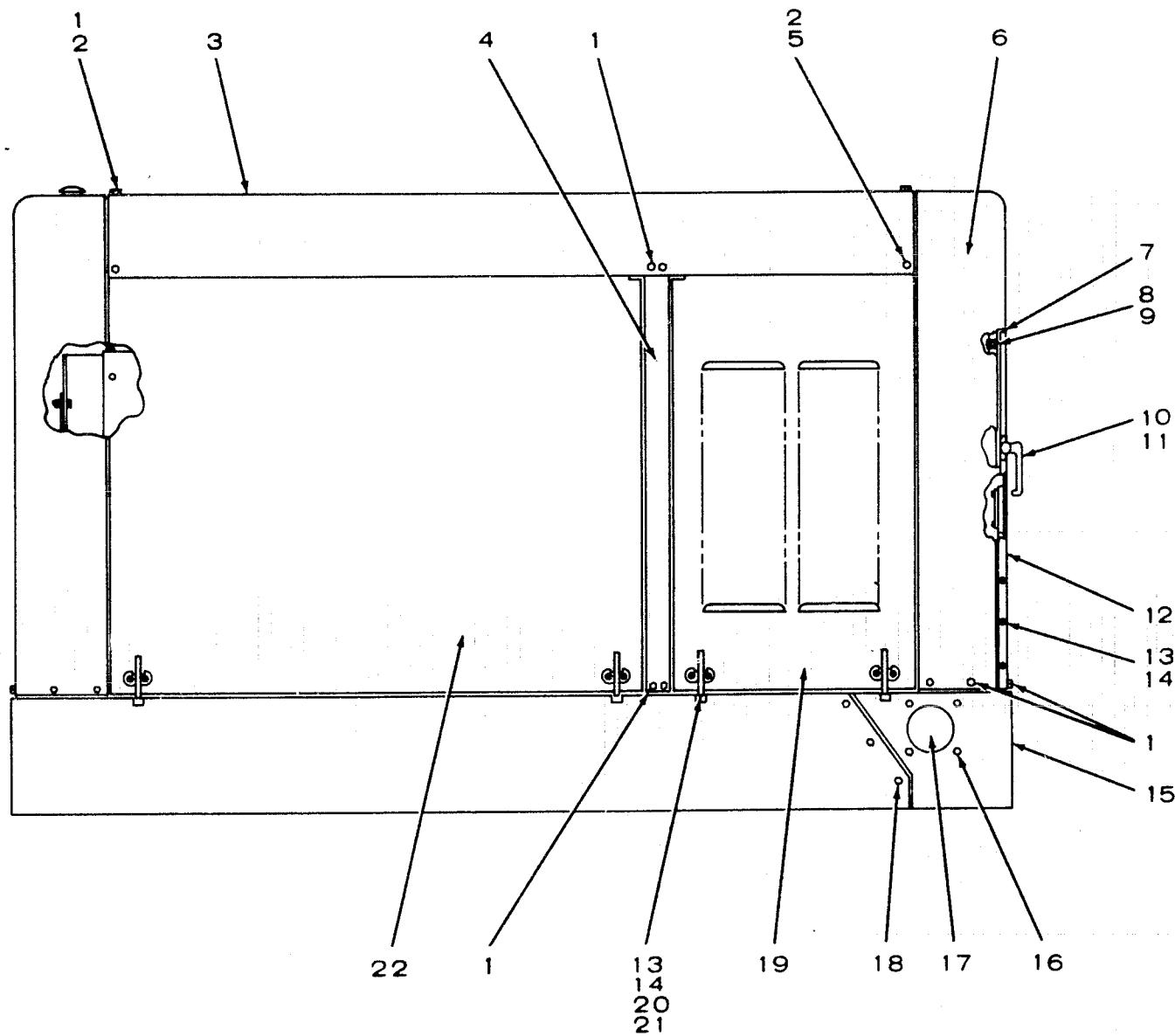
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 402-0214 | 2 | Bolt, Front Engine Mounting |
| 2 | 800-0520 | 2 | Screw, Cap - Hex Head (3/4-10 x 1") |
| 3 | 402-0371 | 2 | Cushion, Vibration |
| 4 | 520-0231 | 2 | Stud, Steel |
| 5 | 526-0115 | 2 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) |
| 6 | 850-0045 | 3 | Washer, Lock - Spring (5/16") |
| 7 | 865-0007 | 2 | Nut, Wing |
| 8 | 416-0336 | 1 | Frame, Battery Holddown |
| 9 | 800-0071 | 4 | Screw, Cap - Hex Head (7/16-14 x 1") |
| 10 | 850-0055 | 4 | Washer, Lock - Spring (7/16") |
| 11 | 862-0004 | 4 | Nut, Hex (7/16-14) |
| 12 | 337-0090 | 1 | Strap, Ground |
| 13 | 800-0091 | 1 | Screw, Cap - Hex Head (1/2-13 x 1-1/4") |
| 14 | 856-0013 | 1 | Washer, Lock - EIT (1/2") |
| 15 | 850-0060 | 1 | Washer, Lock - Spring (1/2") |
| 16 | 862-0016 | 1 | Nut, Hex (1/2-13) |
| 17 | 800-0028 | 1 | Screw, Cap - Hex Head (5/16-18 x 1") |
| 18 | 332-1473 | 1 | Lug, Solderless |
| 19 | 856-0008 | 1 | Washer, Lock - EIT (5/16") |
| 20 | 862-0015 | 1 | Nut, Hex (5/16-18) |
| 21 | 403-0893 | 1 | Chassis |

CONTROL HOUSING



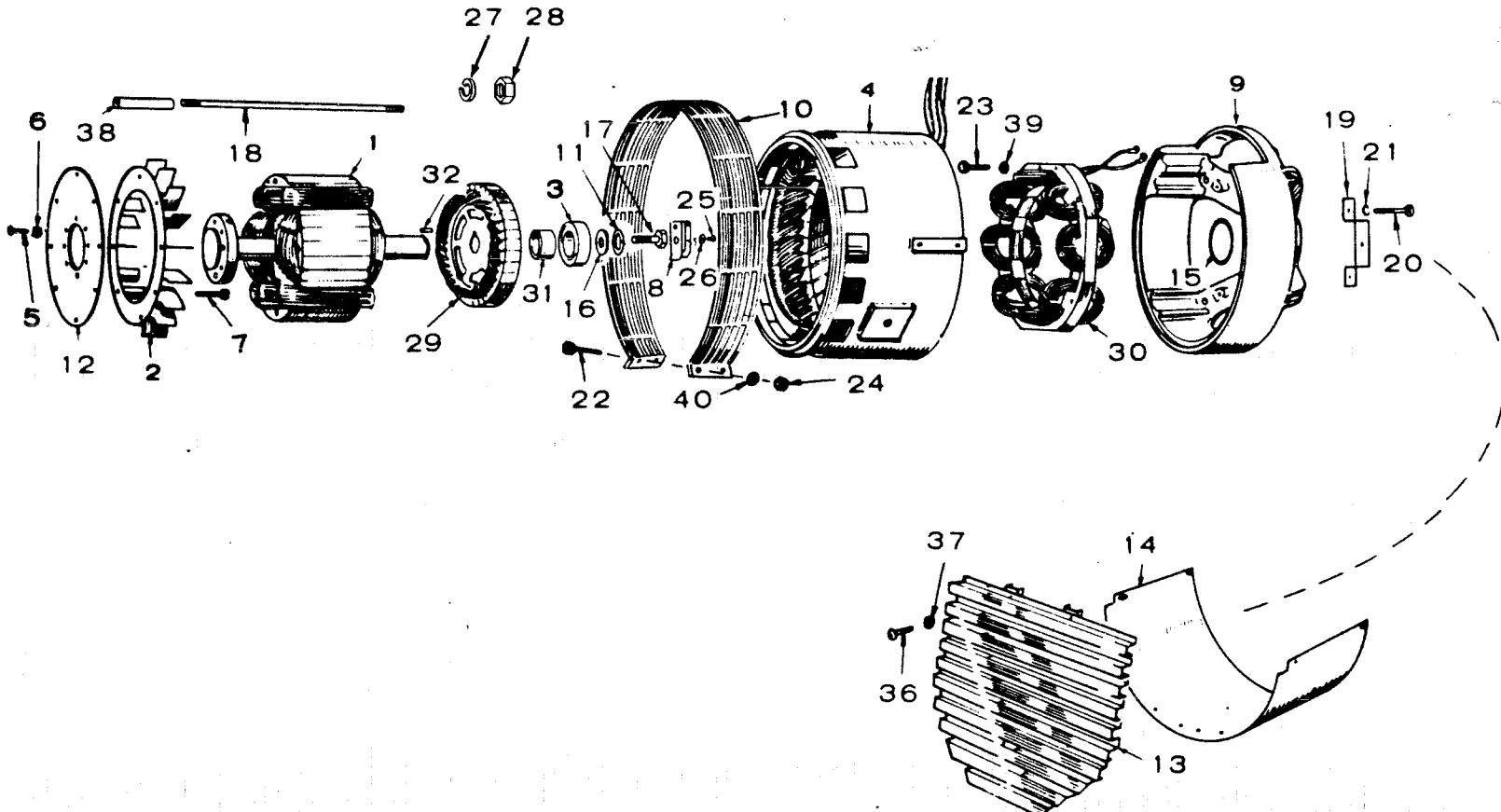
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 301-3154 | 1 | Saddle, Control Box Housing |
| 2 | 336-2264 | 1 | Lead, Wire |
| 3 | 821-0014 | 8 | Screw, Cap - Self Locking (5/16-18 x 1/2") |
| 4 | 815-0350 | 6 | Screw, Tapping - Slotted Hex Head (10-32 x 3/8") |
| 5 | 301-3156 | 1 | Panel, Control Box |
| 6 | 301-3155 | 1 | Housing, Control Box |
| 7 | 821-0018 | 6 | Screw, Cap - Locking Head (1/4-20 x 5/8") |
| 8 | 526-0018 | 5 | Washer, Flat (17/64" ID x 5/8" OD x 1/16" Thk) |
| 9 | 856-0006 | 1 | Washer, Lock - EIT (1/4") |
| 10 | 870-0212 | 6 | Nut, Hex - Self Locking (1/4-20) |
| 11 | 821-0010 | 7 | Screw, Cap - Locking Head (1/4-20 x 1/2") |
| 12 | 508-0203 | 1 | Bushing, Nylon |
| 13 | 234-0361 | 1 | Wrapper, End Bell |

HOUSING



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|--------------------|--------------|---|-------------|-------------|--------------|---|
| 1 | 821-0014 | 24 | Screw, Cap - Locking Head (5/16-18 x 1/2") | 11 | 406-0089 | 1 | Catch |
| 2 | 870-0113 | 12 | Nut, Retainer (5/16-18) | 12 | 405-1780 | 1 | Panel, Rear Housing Access |
| 3 | PANEL, TOP HOUSING | | | 13 | 813-0098 | 22 | Screw, Machine - Roundhead (#10-32 x 3/8") |
| 4 | 405-1779 | 1 | Dry Manifold | 14 | 850-0030 | 22 | Washer, Lock - Spring (#10) |
| 5 | 405-1813 | 1 | Wet Manifold | 15 | 403-0894 | 1 | Chassis, Rear Housing |
| 6 | 405-1776 | 2 | Support, Housing Center | 16 | 821-0010 | 8 | Screw, Cap - Self Locking (1/4-20 x 1/2") |
| 7 | 821-0016 | 4 | Screw, Cap - Locking Head (5/16-18 x 3/4") | 17 | 403-0895 | 2 | Cover, Conduit Opening |
| 8 | 405-1775 | 1 | Panel, Rear Housing | 18 | 821-0029 | 6 | Screw, Cap - Self Locking (3/8-16 x 3/4") |
| 9 | 405-1777 | 1 | Door, Rear Housing | 19 | 405-1778 | 2 | Panel, Side |
| 10 | 870-0106 | 3 | Nut, Speed | 20 | 870-0053 | 16 | Nut, Hex (#10-32) |
| 11 | 809-0059 | 3 | Screw, Sheet Metal - Pan Head (#14 x 1/2") | 21 | 406-0105 | 8 | Fastener, Housing Holdown |
| 12 | 406-0157 | 1 | Handle, Lock (Includes Keys) | 22 | 405-1774 | 2 | Door, Removable |

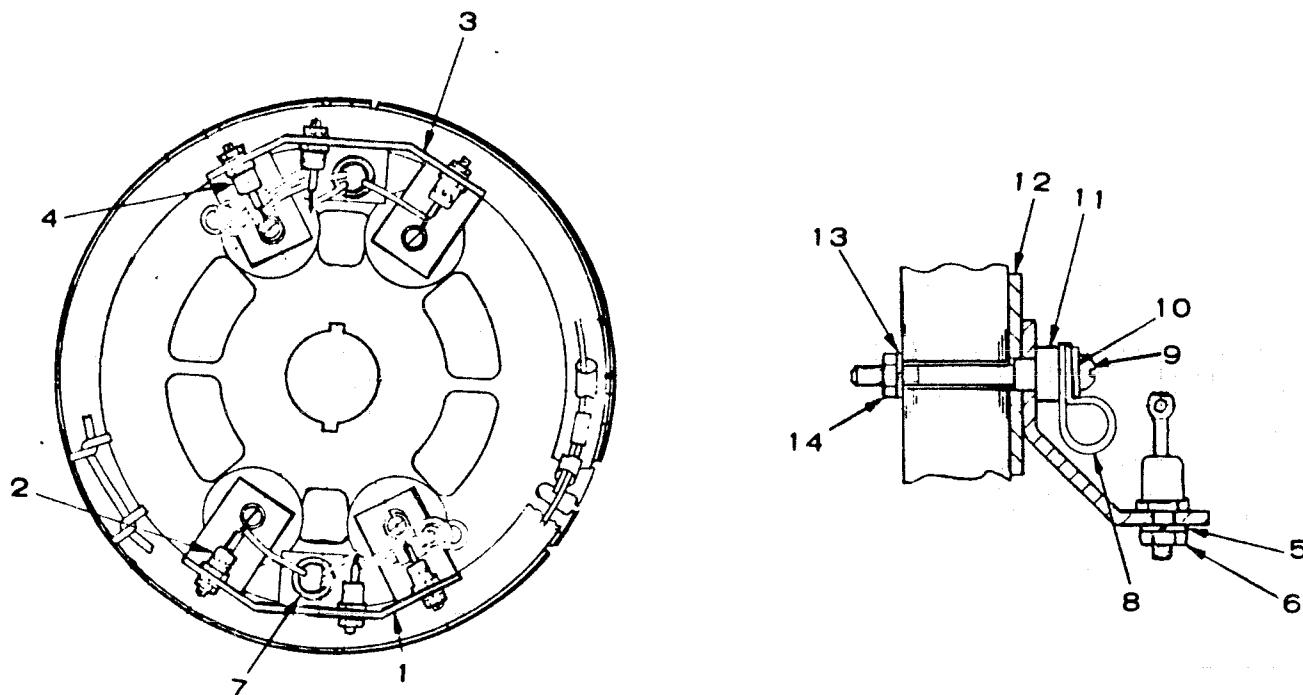
GENERATOR



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------------------|--------------|--|-------------|-------------|--------------|--|
| 1 | 201-2673 | 1 | Rotor Assembly, Wound (Includes Parts Marked †) | 20 | 800-0003 | 2 | Screw, Cap - Hex Head (1/4-20 x 1/2") |
| 2 | 205-0089 | 1 | †Blower | 21 | 850-0040 | 8 | Washer, Lock - Spring (1/4") |
| 3 | 510-0101 | 1 | †Bearing | 22 | 800-0008 | 2 | Screw, Cap - Hex Head (1/4-20 x 1-1/4") |
| 4 | STATOR ASSEMBLY, WOUND | | | 23 | 800-0009 | 4 | Screw, Cap - Hex Head (1/4-20 x 1-1/2") |
| | 220-2001 | 1 | 50 Hertz | 24 | 862-0001 | 2 | Nut, Hex (1/4-20) |
| | 220-1458 | 1 | 15R Sets | 25 | 812-0029 | 1 | Screw, Machine - Roundhead (3/8-16 x 3/4") |
| | 220-1606 | 1 | 9XR Sets | 26 | 856-0010 | 1 | Washer, Lock - EIT (3/8") |
| 5 | 805-0033 | 8 | Bolt, Place - Drive Disc to Hub | 27 | 862-0011 | 4 | Nut, Hex (3/8-16) |
| 6 | 526-0259 | 8 | Washer, Flat (11/16" ID x 1-3/8" OD x 12 Ga. Thk) | 28 | 850-0050 | 4 | Washer, Lock - Spring (3/8") |
| 7 | 805-0018 | 8 | Bolt, Place - Drive Disc to Engine | 29 | 201-1739 | 1 | †Rotor Assembly, Wound - Exciter (See Separate Group for Complete Breakdown) |
| 8 | 150-0717 | 1 | Switch Assembly, Overspeed | 30 | 220-2353 | 1 | Stator Assembly, Wound - Exciter |
| 9 | 211-0185 | 1 | Bell, End | 31 | 232-2102 | 1 | †Spacer, Bearing |
| 10 | 234-0368 | 1 | Screen, Generator | 32 | 515-0145 | 1 | †Key, Exciter Rotor |
| 11 | 850-0079 | 1 | †Washer, Lock - Spring (3/4") | 34 | 800-0073 | 12 | Screw, Cap - Hex Head (7/16-14 x 1-1/2") |
| 12 | 232-2078 | 1 | †Disc, Generator Drive | 35 | 850-0055 | 12 | Washer, Lock - Spring (7/16") |
| 13 | 234-0370 | 1 | Grille, Generator Air Inlet (Unhoused Sets) | 36 | 812-0146 | 4 | Screw, Machine - Roundhead (1/4-20 x 3/8") |
| 14 | 234-0361 | 1 | Wrapper, Generator End Bell (Unhoused Sets) | 37 | 850-0040 | 4 | Washer, Lock - Spring (1/4") |
| 15 | 509-0125 | 1 | Seal, "O" Ring | 38 | 503-0611 | 4 | Hose, Insulator |
| 16 | 526-0238 | 1 | †Washer, Bearing Retainer | 39 | 850-0040 | 4 | Washer, Lock - Spring (1/4") |
| 17 | 800-0513 | 1 | †Screw, Cap - Hex Head - Bearing Retainer (3/4-10 x 1-1/2") | 40 | 850-0040 | 2 | Washer, Lock - Spring (1/4") |
| 18 | STUD, GENERATOR THROUGH | | | | | | |
| | 520-0724 | 4 | 70 KR Sets | | | | |
| | 520-0726 | 4 | 85 KR Sets | | | | |
| 19 | 150-1456 | 1 | Bracket and Point Assembly - Overspeed | | | | |

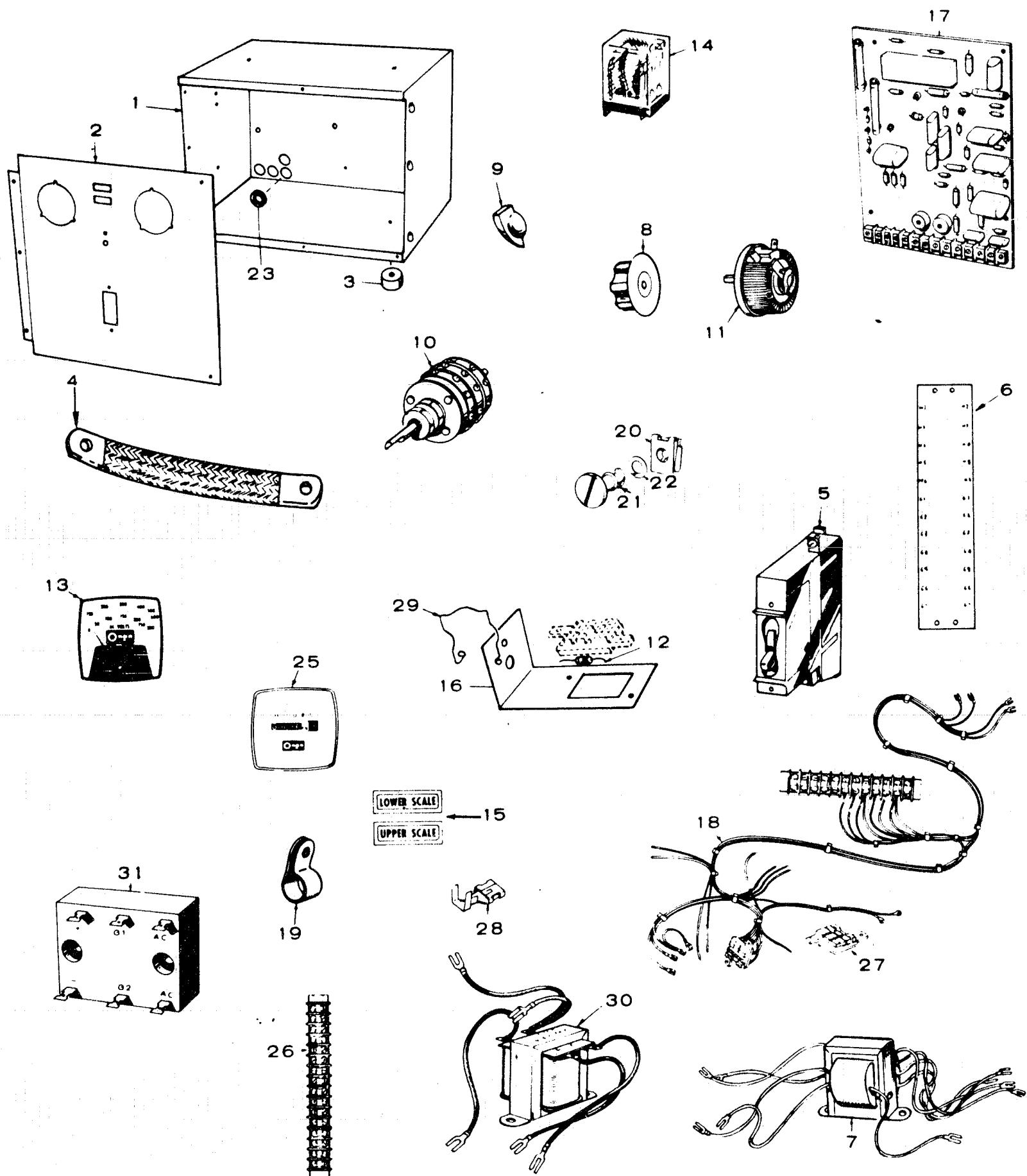
† - Parts Included in Wound Rotor Assembly.

EXCITER ROTOR



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| | 201-1739 | 1 | Rotor Assembly, Wound - Exciter (Complete) |
| 1 | 363-0055 | 1 | Heat Sink, Rectifier - Negative |
| 2 | 358-0015 | 3 | Rectifier, Diode - Negative (CR4, CR5 & CR6) |
| 3 | 363-0054 | 1 | Heat Sink, Rectifier - Positive |
| 4 | 358-0016 | 3 | Rectifier, Diode - Positive (CR1, CR2 & CR3) |
| 5 | 850-0030 | 6 | Washer, Lock Spring (#10) - Diode Mounting |
| 6 | 870-0053 | 6 | Nut, Hex - Diode Mounting (10-32) |
| 7 | 508-0093 | 2 | Grommet, Rubber |
| 8 | 332-0050 | 2 | Clip, Wire |
| 9 | 813-0110 | 4 | Screw, Roundhead - Heat Sink Mounting (10-32 x 2") |
| 10 | 526-0009 | 4 | Washer, Flat - Heat Sink Mounting (#10) |
| 11 | 508-0124 | 4 | Bushing, Insulating - Heat Sink Mounting |
| 12 | 508-0156 | 4 | Washer, Insulating - Heat Sink Mounting |
| 13 | 850-0030 | 4 | Washer, Lock Spring - Heat Sink Mounting (#10) |
| 14 | 870-0053 | 4 | Nut, Hex - Heat Sink Mtg. (10-32) |

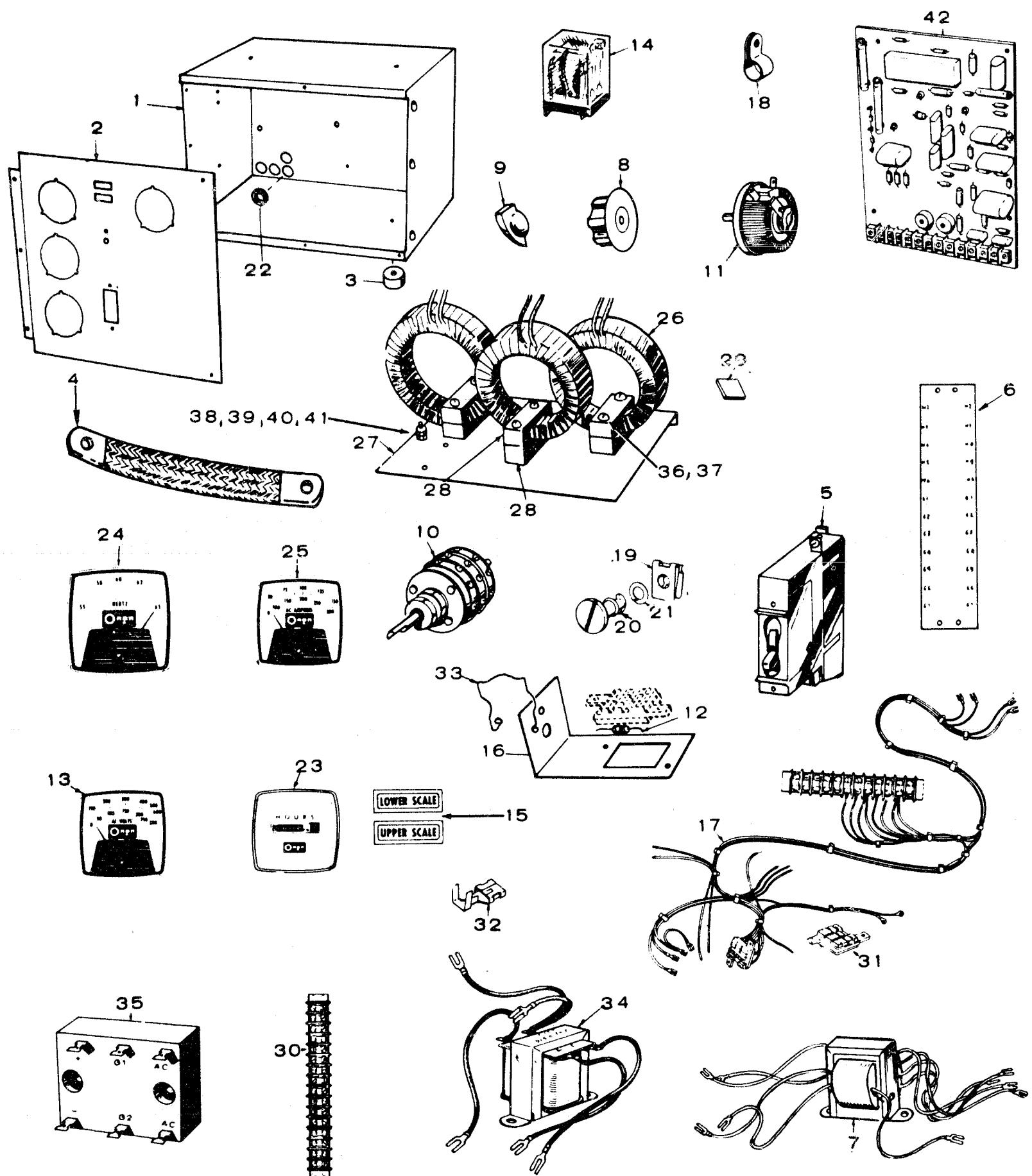
**CONTROL (AC PORTION)
SETS WITHOUT METER PANEL**



**CONTROL (AC PORTION)
SETS WITHOUT METER PANEL**

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|---------------------------|--------------|--|-------------|---|--------------|--|
| 1 | 301-3158 | 1 | Box, Control | 17 | 332-1956 | 1 | Regulator Board, Voltage (See Separate Group for Complete Breakdown) |
| 2 | PANEL, CONTROL | | | 18 | HARNESS, WIRING (INCLUDES PARTS MARKED *) | | |
| | 301-3274 | 1 | 15R and 515R Sets | 338-0764 | | 1 | 15R and 515R Sets |
| | 301-3821 | 1 | 9XR Sets | 338-0766 | | 1 | 9XR Sets |
| 3 | 402-0078 | 4 | Dampener, Vibration | 19 | 332-0050 | 2 | Clip, Tinnerman |
| 4 | 337-0049 | 1 | Strap, Ground | 20 | 406-0332 | 2 | Fastener |
| 5 | 320-0431 | 1 | Breaker, Circuit (2 Amp) | 21 | 406-0333 | 2 | Stud, Fastener |
| 6 | 332-1248 | 1 | Strip, Marker | 22 | 406-0334 | 2 | Washer, Stud Fastener |
| 7 | 315-0431 | 1 | Transformer, Voltage | 23 | 508-0001 | 4 | Grommet |
| 8 | 303-0032 | 1 | Knob, Rheostat | 25 | METER, RUNNING TIME | | |
| 9 | 303-0076 | 1 | Knob, Selector Switch | 302-0466 | | 1 | 60 Hertz |
| 10 | 308-0012 | 1 | Switch, Selector | 302-0469 | | 1 | 50 Hertz |
| 11 | 303-0170 | 1 | Rheostat | 26 | 332-0607 | 1 | *Block, Terminal |
| 12 | 350-0556 | 1 | *Resistor (47,000-Ohm, 1/2 Watt) | 27 | 323-0764 | 1 | *Socket, Relay - 15R and 515R Sets |
| 13 | VOLTMETER | | | 28 | 332-1280 | As Req | *Terminal, Crimp |
| | 302-0718 | 1 | 15R and 515R Sets | 29 | 307-1157 | 1 | Spring, Relay Holddown - 15R and 515R Sets |
| | 302-0779 | 1 | 9XR Sets | 30 | 315-0384 | 1 | Reactor, Commutator |
| 14 | 307-1061 | 1 | Relay, Voltage Selector - 15R and 515R Sets | 31 | 305-0524 | 1 | Rectifier, Bridge |
| 15 | LIGHT - 15R AND 515R SETS | | | | | | * - Parts Included in Wiring Harness. |
| | 322-0130 | 1 | Lower Scale | | | | |
| | 322-0131 | 1 | Upper Scale | | | | |
| 16 | 301-3244 | 1 | Bracket, Relay Mounting - 15R and 515R Sets | | | | |

**CONTROL (AC PORTION)
SETS WITH METER PANEL**

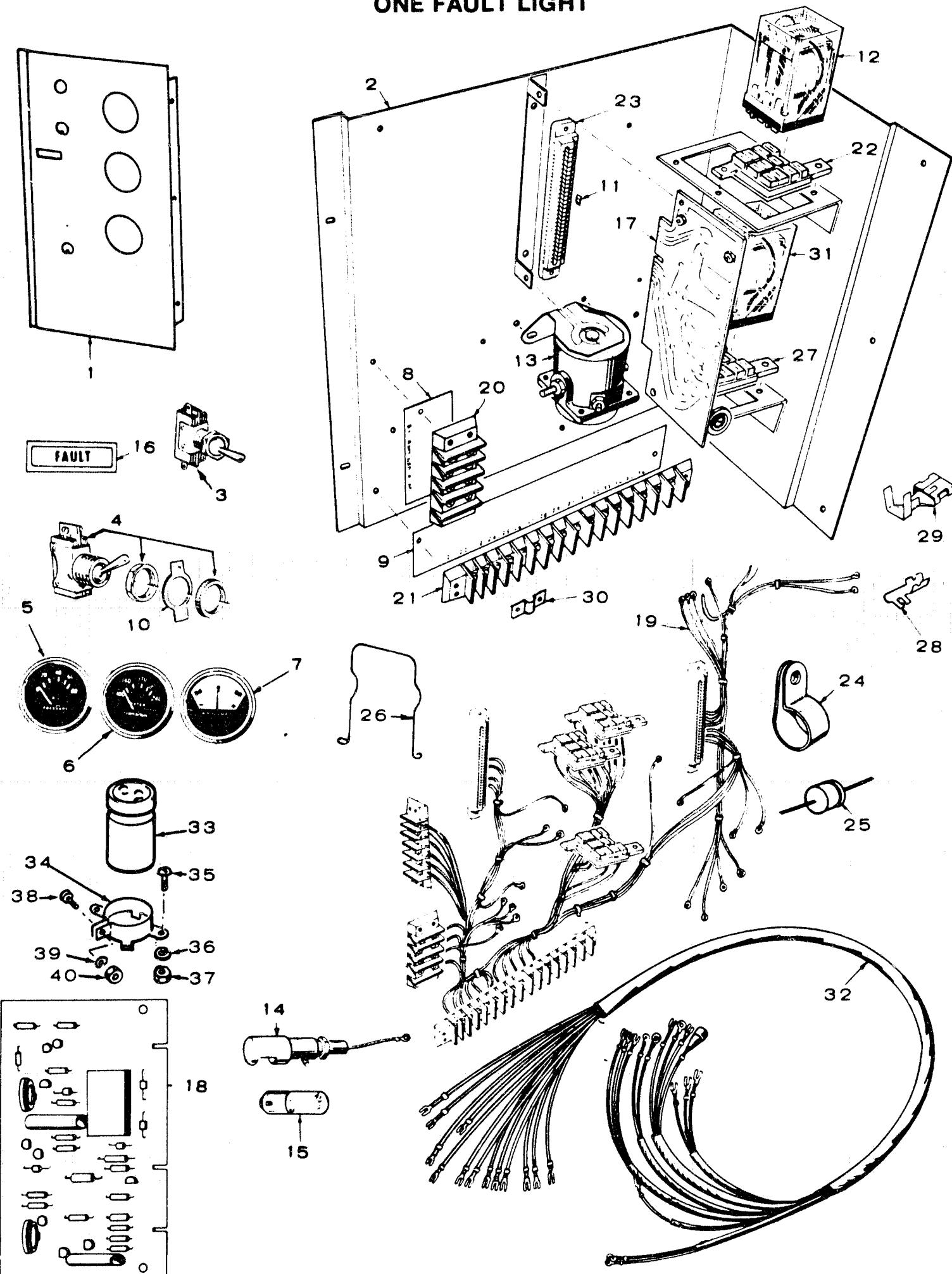


CONTROL (AC PORTION) SETS WITH METER PANEL

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|---|--------------|--|-------------|----------------------|---|--|
| 1 | 301-3158 | 1 | Box, Control | 24 | METER, FREQUENCY | | |
| 2 | PANEL, CONTROL | | | 302-0221 | 1 | 60 Hertz | |
| | 301-3170 | 1 | 15R and 515R Sets | 302-0256 | 1 | 50 Hertz | |
| | 301-3342 | 1 | 9XR Sets | 25 | AMMETER | | |
| 3 | 402-0078 | 4 | Dampener, Vibration | 302-0722 | 1 | 15R & 515R Sets (Dual Scale) (0-200/0-400) | |
| 4 | 337-0049 | 1 | Strap, Ground | 302-0410 | 1 | 9XR Sets (0-150) | |
| 5 | 320-0431 | 1 | Breaker, Circuit (2 Amp) | 26 | TRANSFORMER, CURRENT | | |
| 6 | 332-1242 | 1 | Strip, Marker | 302-0608 | 3 | 15R & 515R Sets | |
| 7 | 315-0431 | 1 | Transformer, Voltage | 302-0079 | 3 | 9XR Sets | |
| 8 | 303-0032 | 1 | Knob, Rheostat | 27 | 302-0729 | 1 | Bracket, Transformer Mounting |
| 9 | 303-0076 | 1 | Knob, Selector | 28 | CLAMP, TRANSFORMER | | |
| 10 | 308-0284 | 1 | Switch, Selector | 302-0235 | 3 | Upper | |
| 11 | 303-0170 | 1 | Rheostat | 302-0236 | 3 | Lower | |
| 12 | 350-0556 | 1 | *Resistor (47,000-Ohm, 1/2 Watt) | 29 | 302-0253 | As Req | Shim, Transformer Mounting |
| 13 | VOLTMETER | | | 30 | 332-0795 | 1 | *Block, Terminal |
| | 302-0718 | 1 | 15R and 515R Sets | 31 | 323-0764 | 1 | *Socket, Relay |
| | 302-0779 | 1 | 9XR Sets | 32 | 332-1280 | As Req | *Terminal, Crimp |
| 14 | 307-1061 | 1 | Relay, Voltage Selector - 15R & 515R Sets | 33 | 307-1157 | 1 | Spring, Relay Holddown |
| 15 | LIGHT - 15R AND 515R SETS | | | 34 | 315-0384 | 1 | Reactor, Commutator |
| | 322-0131 | 1 | Upper Scale | 35 | 305-0524 | 1 | Rectifier, Bridge |
| | 322-0130 | 1 | Lower Scale | 36 | 813-0110 | 6 | Screw, Machine - Roundhead (#10-32 x 2") |
| 16 | 301-3244 | 1 | Bracket, Relay Mounting - 15R & 515R Sets | 37 | 854-0010 | 8 | Washer, Lock IT (#10) |
| 17 | HARNESS, WIRING (Includes Parts Marked *) | | | 38 | 815-0203 | 1 | Screw, Machine - Roundhead (#10-32 x 7/8") |
| | 338-0730 | 1 | 15R & 515R Sets | 39 | 871-0010 | 3 | Nut, Hex (#10-32) |
| | 338-0759 | 1 | 9XR Sets | 40 | 526-0049 | 2 | Washer, Flat (.200" ID x 7/16" OD x 1/32" Thk) |
| 18 | 332-0050 | 2 | Clip, Tinnerman | 41 | 856-0003 | 1 | Washer, Lock EIT (1/2") |
| 19 | 406-0332 | 2 | Fastener | 42 | 332-1956 | 1 | Regulator Board, Voltage (See Separate Group for Complete Breakdown) |
| 20 | 406-0333 | 2 | Stud, Fastener | | | | |
| 21 | 406-0334 | 2 | Washer, Stud Fastener | | | | |
| 22 | 508-0001 | 4 | Grommet, Rubber | | | | |
| 23 | METER, RUNNING TIME | | | | | | |
| | 302-0469 | 1 | 50 Hertz | | | | |
| | 302-0466 | 1 | 60 Hertz | | | | |

* - Parts Included in Wiring Harness.

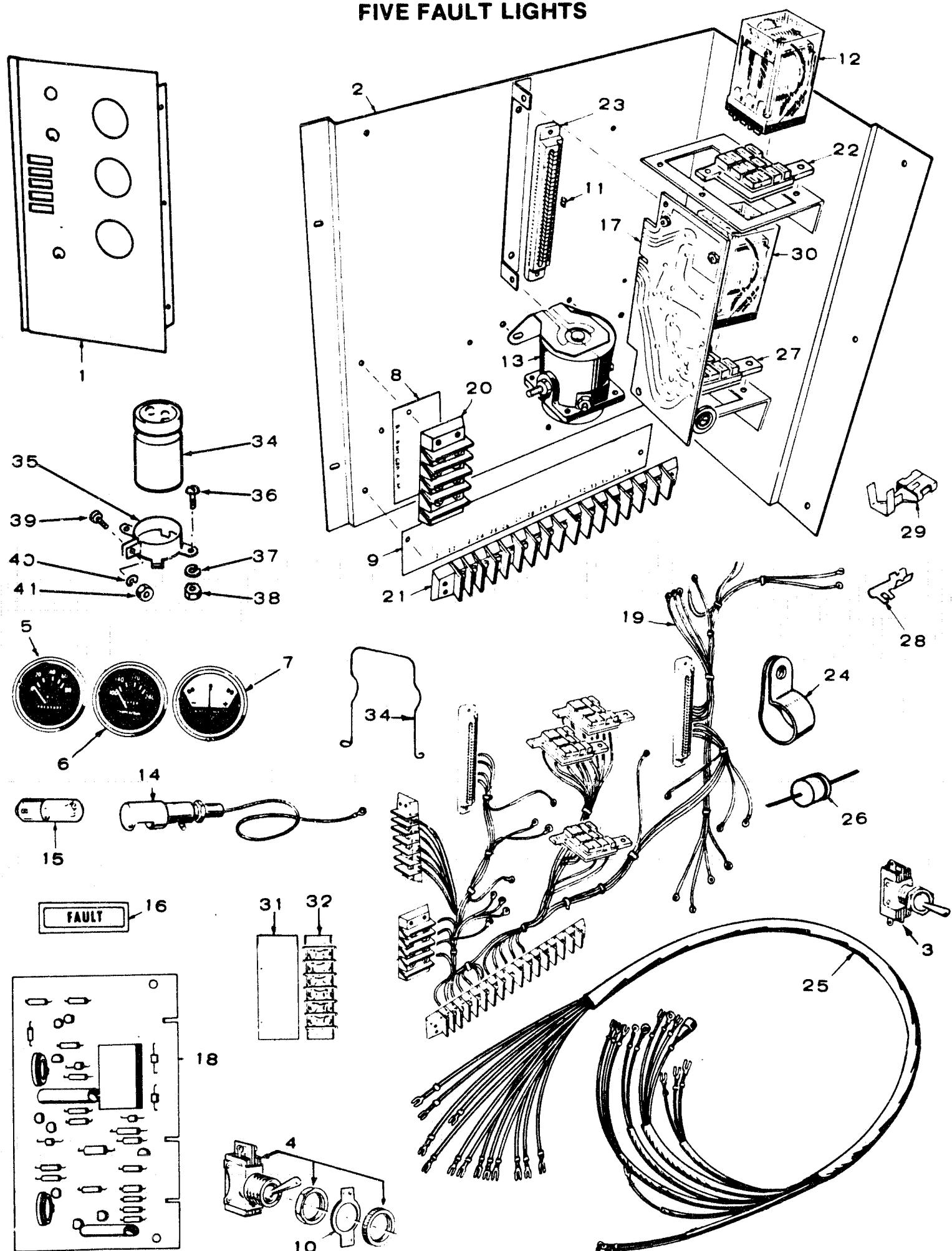
**CONTROL (ENGINE PORTION)
ONE FAULT LIGHT**



**CONTROL (ENGINE PORTION)
ONE FAULT LIGHT**

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|---|
| 1 | 301-3165 | 1 | Panel, Engine Control | 27 | 323-0764 | 1 | *Socket, Relay |
| 2 | 301-3253 | 1 | Bracket, Engine Control | 28 | 332-1269 | As Req | *Terminal, Printed Circuit Board |
| 3 | 308-0138 | 1 | Switch, Selector | 29 | 332-1280 | As Req | *Terminal, Crimp |
| 4 | 308-0002 | 1 | Switch, Panel Light | 30 | 332-1043 | 1 | *Jumper, Terminal |
| 5 | 193-0243 | 1 | Gauge, Oil Pressure | 31 | 307-1061 | 1 | Relay, Starter Protection |
| 6 | 193-0245 | 1 | Gauge, Water Temperature | 32 | 338-0505 | 1 | Harness, Wiring - Engine to Control |
| 7 | 302-0061 | 1 | Ammeter, Charge (30-0-30) | 33 | 356-0072 | 1 | Capacitor - Begin Serial #A780294689 During Spec T |
| 8 | 332-1239 | 1 | Strip, Marker (B+, Remote, Ground & Alarm) | 34 | 356-0070 | 1 | Bracket, Capacitor Mounting - Begin Serial #A780294689 During Spec T |
| 9 | 332-1241 | 1 | Strip, Marker (21 through 36) | 35 | 812-0076 | 2 | Screw, Machine - Roundhead (#8-32 x 5/16") - Begin Serial #A780294689 During Spec T |
| 10 | 308-0003 | 1 | Plate, Switch - ON/OFF | 36 | 850-0025 | 2 | Washer, Lock - Spring (#8) - Begin Serial #A780294689 During Spec T |
| 11 | 332-1276 | 2 | Plug, Keying | 37 | 860-0008 | 2 | Nut, Hex (8-32) Begin Serial #A780294689 During Spec T |
| 12 | 307-1058 | 2 | Relay (1) Start-Disconnect (1) Ignition | 38 | 812-0065 | 1 | Screw, Machine - Roundhead (#6-32 x 5/8") Begin Serial #A780294689 During Spec T |
| 13 | 307-1031 | 1 | Relay, Start Solenoid | 39 | 850-0020 | 1 | Washer, Lock - Spring (#6) - Begin Serial #A780294689 During Spec T |
| 14 | 322-0149 | 1 | Holder, Lamp | 40 | 860-0006 | 1 | Nut, Hex (6-32) Begin Serial #A780294689 During Spec T |
| 15 | 322-0004 | 1 | Lamp, Panel | | | | * - Parts Included in Wiring Harness. |
| 16 | 322-0128 | 1 | Lamp, Fault - Standard | | | | |
| 17 | 300-0733 | 1 | Control, Cranker - Standard | | | | |
| 18 | 300-0679 | 1 | Monitor, Engine Control (See Separate Group for Components) | | | | |
| 19 | 338-1065 | 1 | Harness, Wiring (Includes Parts Marked *) | | | | |
| 20 | 332-0537 | 1 | *Block, Terminal | | | | |
| 21 | 332-0795 | 1 | *Block, Terminal | | | | |
| 22 | 323-0765 | 2 | Socket, Relay | | | | |
| 23 | 332-1271 | 2 | *Housing, Printed Circuit Board | | | | |
| 24 | 332-0051 | 1 | Clip, Tinnerman | | | | |
| 25 | 357-0004 | 1 | Diode, Rectifier (Part of Crankers Control) | | | | |
| 26 | 307-1157 | 3 | Spring, Relay Holdown | | | | |

**CONTROL (ENGINE PORTION)
FIVE FAULT LIGHTS**

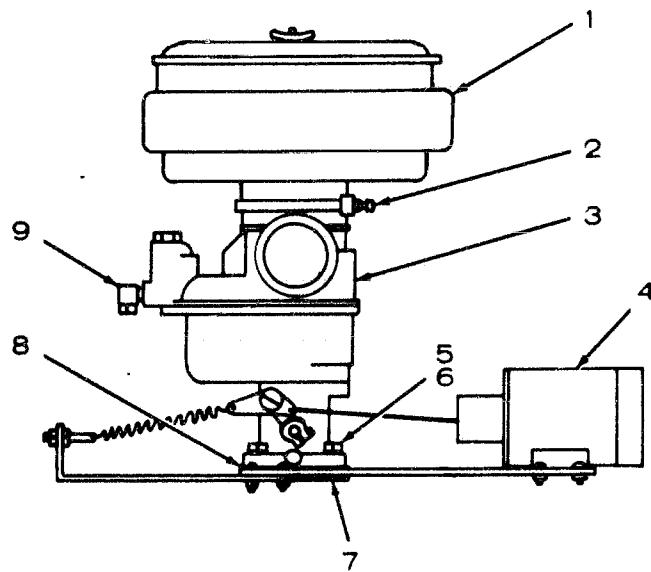


CONTROL (ENGINE PORTION)
FIVE FAULT LIGHTS

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|---|
| 1 | 301-3267 | 1 | Panel, Engine Control | 25 | 338-0505 | 1 | Harness, Wiring - Control to Engine |
| 2 | 301-3253 | 1 | Bracket, Engine Control | 26 | 357-0004 | 1 | Rectifier, Diode (Part of Standard Cranker) |
| 3 | 308-0138 | 1 | Switch, Selector | 27 | 323-0764 | 1 | *Socket, Relay |
| 4 | 308-0002 | 1 | Switch, Panel Light | 28 | 332-1269 | As Req | *Terminal, Printed Circuit Board |
| 5 | 193-0243 | 1 | Gauge, Oil Pressure | 29 | 332-1280 | As Req | *Terminal, Crimp |
| 6 | 193-0245 | 1 | Gauge, Water Temperature | 30 | 307-1061 | 1 | Relay, Starter Protection |
| 7 | 302-0061 | 1 | Ammeter (30-0-30) | 31 | 332-0699 | 1 | *Block, Terminal |
| 8 | 332-1239 | 1 | Strip, Marker (B+, Alarm, Remote & Ground) | 32 | 332-1240 | 1 | Strip, Marker |
| 9 | 332-1559 | 1 | Strip, Marker | 34 | 356-0072 | 1 | Capacitor - Begin Serial #A780294689 During Spec T |
| 10 | 308-0003 | 1 | Plate, Switch - On/Off | 35 | 356-0070 | 1 | Bracket, Capacitor Mounting - Begin Serial #A780294689 During Spec T |
| 11 | 332-1276 | 1 | Plug, Keying | 36 | 812-0076 | 2 | Screw, Machine - Roundhead - Begin Serial #A780294689 During Spec T (#8-32 x 5/16") |
| 12 | 307-1058 | 2 | Relay (1) Start-Disconnect (1) Ignition | 37 | 850-0025 | 2 | Washer, Lock - Spring (#8) - Begin Serial #A780294689 During Spec T |
| 13 | 307-1031 | 1 | Relay, Start Solenoid | 38 | 660-0008 | 2 | Nut, Hex (8-32) - Begin Serial #A780294689 During Spec T |
| 14 | 322-0149 | 1 | Holder, Lamp | 39 | 812-0065 | 1 | Screw, Machine - Roundhead (#6-32 x 5/8") - Begin Serial #A780294689 During Spec T |
| 15 | 322-0004 | 1 | Lamp, Panel | 40 | 850-0020 | 1 | Washer, Lock - Spring (#6) - Begin Serial #A780294689 During Spec T |
| 16 | LAMP, FAULT | | | 41 | 860-0006 | 1 | Nut, Hex (#6-32) - Begin Serial #A780294689 During Spec T |
| | 322-0107 | 1 | Overcrank | | | | |
| | 322-0108 | 1 | Low Oil Pressure | | | | |
| | 322-0109 | 1 | Hi Engine Temperature | | | | |
| | 322-0110 | 1 | Low Engine Temperature | | | | |
| | 322-0111 | 1 | Overspeed | | | | |
| 17 | 300-0733 | 1 | Control, Cranker | | | | |
| 18 | 300-0681 | 1 | Monitor, Engine Control (See Separate Group for Complete Breakdown) | | | | |
| 19 | 338-1066 | 1 | Harness, Wiring (Includes Parts Marked *) | | | | |
| 20 | 332-0537 | 1 | *Block, Terminal (4 Place) | | | | |
| 21 | 332-1005 | 1 | *Block, Terminal | | | | |
| 22 | 323-0765 | 2 | Socket, Relay | | | | |
| 23 | 332-1271 | 2 | *Housing, Printed Circuit Board Terminal | | | | |
| 24 | 332-0051 | 1 | Clip, Tinnerman | | | | |

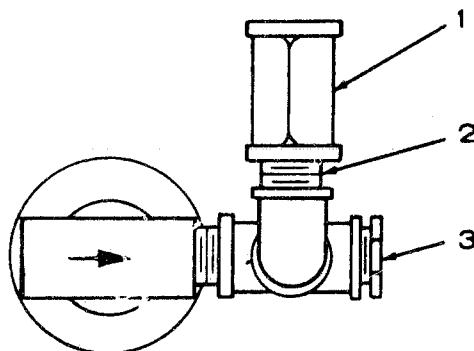
* - Parts Included in Wiring Harness.

CARBURETOR PARTS

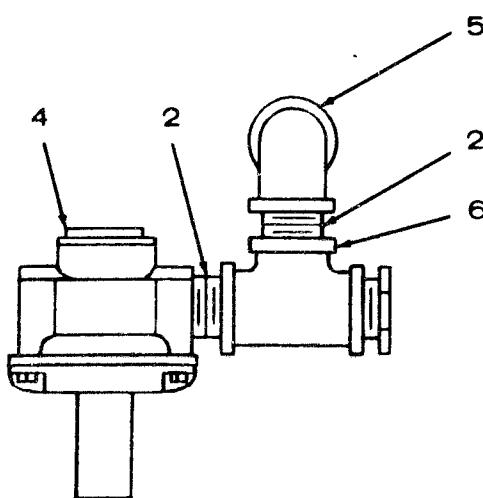


| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | 140-0524 | 1 | Cleaner, Air (Includes Element) |
| 2 | 140-0525 | 1 | Adapter, Air Cleaner |
| 3 | 141-0825 | 1 | Carburetor |
| 4 | | 1 | Anti Dieseling (See Separate Group for Complete Breakdown) |
| 5 | 110-0445 | 4 | Nut, Hex (5/16-24) |
| 6 | 850-0045 | 4 | Washer, Lock - Spring (5/16") |
| 7 | 145-0189 | 2 | Gasket, Carburetor Flange |
| 8 | 145-0185 | 1 | Gasket, Carburetor Flange |
| 9 | 502-0004 | 1 | Elbow, Inverted Male |

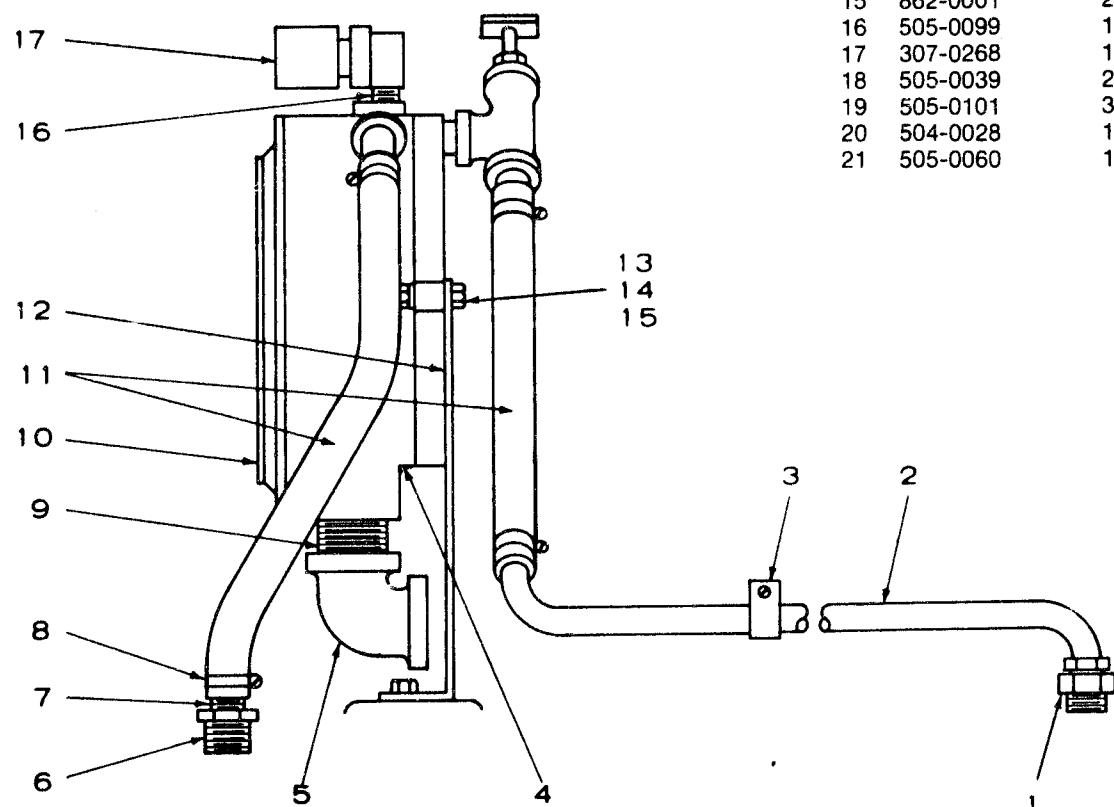
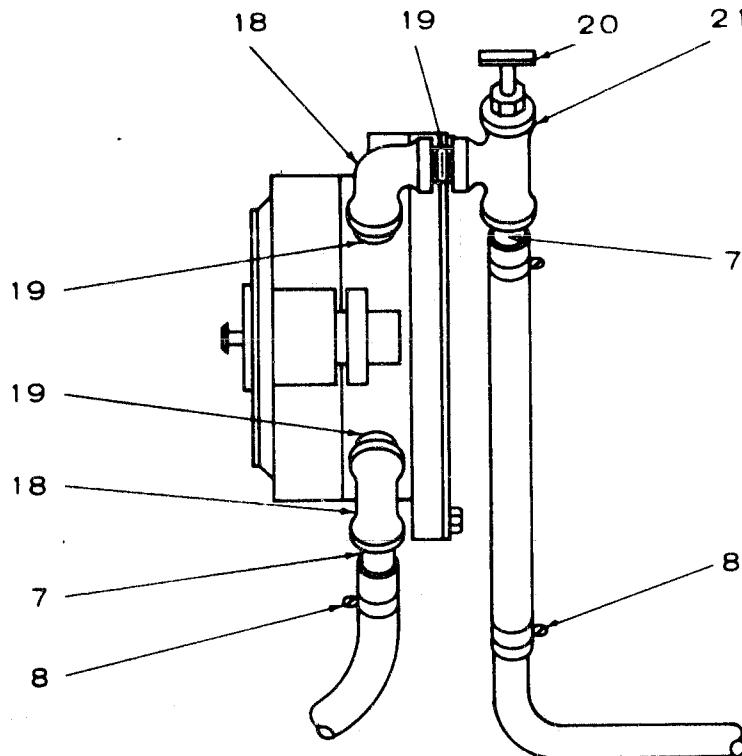
VALVE AND REGULATOR SYSTEM



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---------------------|
| 1 | 148-0626 | 1 | Valve, Adjusting |
| 2 | 505-0004 | 3 | Nipple, Pipe |
| 3 | 505-0129 | 1 | Bushing, Reducer |
| 4 | 148-0601 | 1 | Regulator |
| 5 | 505-0041 | 1 | Elbow, Pipe |
| 6 | 505-0304 | 1 | Tee, Pipe |

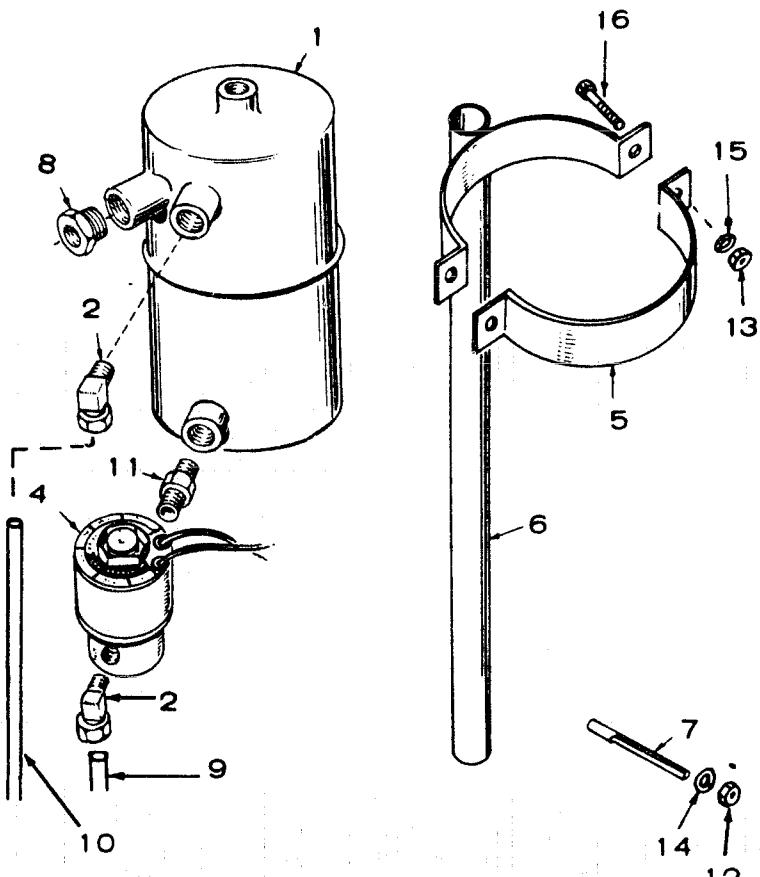


VAPORIZER SYSTEM



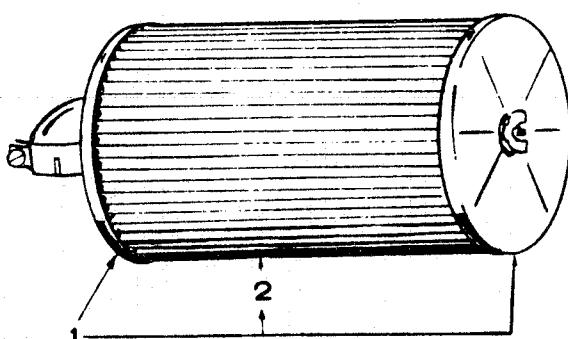
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|--|
| 1 | 502-0227 | 1 | Connector, Inverted Male |
| 2 | 131-0192 | 1 | Line, Water |
| 3 | 148-0274 | 1 | Bracket, Hose |
| 4 | 504-0005 | 1 | Cock, Drain |
| 5 | 505-0356 | 1 | Elbow, Reducer |
| 6 | 505-0019 | 1 | Bushing, Reducer |
| 7 | 505-0135 | 3 | Nipple, Half |
| 8 | 503-0189 | 4 | Clamp, Hose |
| 9 | 505-0107 | 1 | Nipple |
| 10 | 148-0625 | 1 | Converter, Gas |
| 11 | 503-0051 | 2 | Hose |
| 12 | 148-0631 | 1 | Bracket, Vaporizer Mounting |
| 13 | 800-0009 | 2 | Screw, Cap - Hex Head (1/4-20 x 1-1/2") |
| 14 | 850-0040 | 2 | Washer, Lock - Spring (1/4") |
| 15 | 862-0001 | 2 | Nut, Hex (1/4-20) |
| 16 | 505-0099 | 1 | Nipple, Pipe |
| 17 | 307-0268 | 1 | Valve, Solenoid |
| 18 | 505-0039 | 2 | Elbow, Pipe |
| 19 | 505-0101 | 3 | Nipple, Close |
| 20 | 504-0028 | 1 | Cock, Drain |
| 21 | 505-0060 | 1 | Tee, Pipe |

OPTIONAL RESERVOIR (DAY) TANK

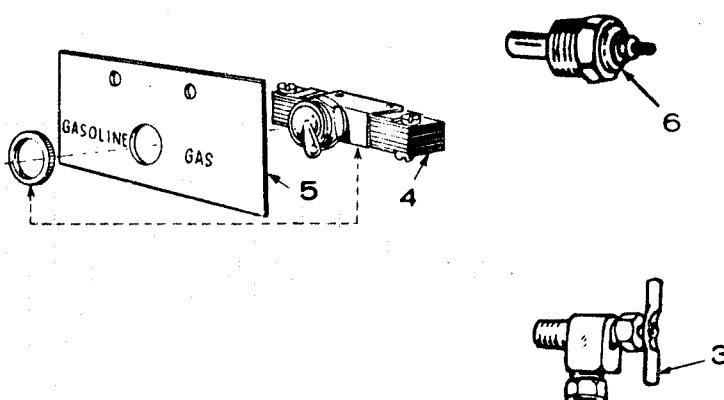


| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|-------------------------------------|
| 1 | 159-0294 | 1 | Tank, Day |
| 2 | 502-0024 | 3 | Elbow |
| 3 | 505-0057 | 2 | Plug, Square Head |
| 4 | 307-0565 | 1 | Valve, Solenoid |
| 5 | 159-0253 | 1 | Clamp, Front |
| 6 | 159-0678 | 1 | Bracket, Tank Mounting |
| 7 | 159-0681 | 1 | Bolt, Wedge |
| 8 | 159-0705 | 1 | Reducer, Restricted |
| 9 | 159-0667 | 1 | Line, Fuel - Tank to Carburetor |
| 10 | 159-0686 | 1 | Line, Fuel - Tank to Pump |
| 11 | 502-0082 | 1 | Nipple, Hex |
| 12 | 862-0015 | 1 | Nut, Hex (5/16-18) |
| 13 | 862-0001 | 2 | Nut, Hex (1/4-20) |
| 14 | 850-0045 | 1 | Washer, Lock - Spring (5/16") |
| 15 | 850-0040 | 2 | Washer, Lock - Spring (1/4") |
| 16 | 800-0007 | 2 | Screw, Cap - Hex Head (1/4-20 x 1") |

OPTIONAL MISCELLANEOUS ENGINE PARTS



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|--------------------------------------|
| 1 | 140-0851 | 1 | Cleaner, Air - Gaseous Fuels |
| 2 | 140-0871 | 1 | Element, Air Cleaner - Gaseous Fuels |
| 3 | 504-0085 | 1 | Valve, Fuel Shut Off |
| 4 | 308-0005 | 1 | Switch, Gas-Gasoline |
| 5 | 308-0150 | 1 | Bracket, Switch Mounting |
| 6 | 193-0249 | 1 | Sender, Oil Temperature |



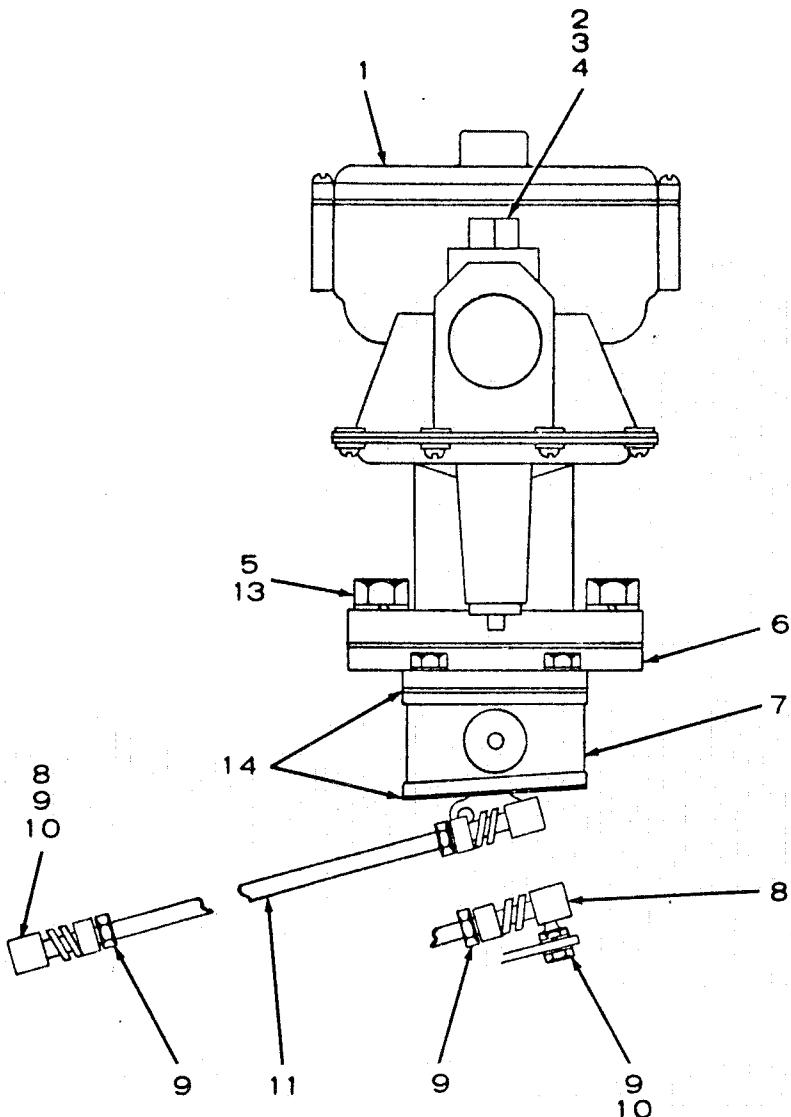
OPTIONAL INSTALLATION INDEX

INSTALLATION

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| Carburetor and Regulator - Natural Gas and LPG | C3 |
| Carburetor and Converter - Gasoline and LPG | C4 |
| Carburetor - Gasoline and LPG | C5 |
| Carburetor and Converter - LPG | C6 |
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| Carburetor and Regulator - LPG Vapor | C8 |
| Carburetor and Regulator - LPG - Liquid | C9 |
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| Hydraulic Governor | C13 |
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| Water Jacket Heater | E13 |

NOTE: For Field Conversion, order all Parts listed in the Installation Group.

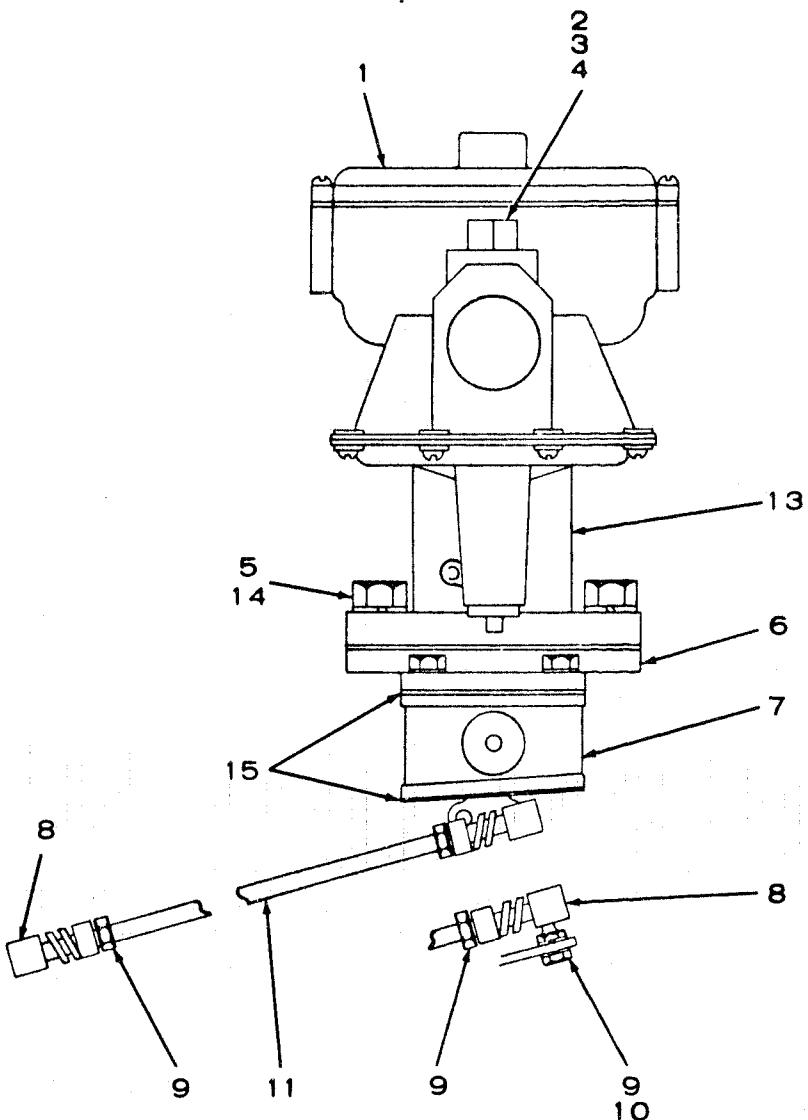
OPTIONAL CARBURETOR ASSEMBLY (NATURAL GAS)



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 148-0592 | 1 | *Carburetor (Impco #200) |
| 2 | 148-0601 | 1 | *Valve, Thermal (Impco #T-30) |
| 3 | 505-0102 | 1 | Nipple, Close (3/4 x 1-3/8") |
| 4 | 505-0129 | 1 | Bushing, Reducer |
| 5 | 800-0071 | 2 | Screw, Cap - Hex Head (7/16-14 x 1") |
| 6 | 145-0358 | 1 | Adapter, Carburetor |
| 7 | 145-0410 | 1 | Body Assembly, Throttle |
| 8 | 150-0638 | 2 | Joint, Ball |
| 9 | 115-0025 | 4 | Nut, Hex (1/4-28") |
| 10 | 850-0040 | 1 | Washer, Lock - Spring (1/4") |
| 11 | 520-0517 | 1 | Stud |
| 13 | 850-0055 | 2 | Washer, Lock - Spring (1/4") |
| 14 | 145-0185 | 2 | Gasket |

* - For components contact your nearest Impco dealer or Impco Division, 16916 Gridley Place, Cerritos, California 90701.

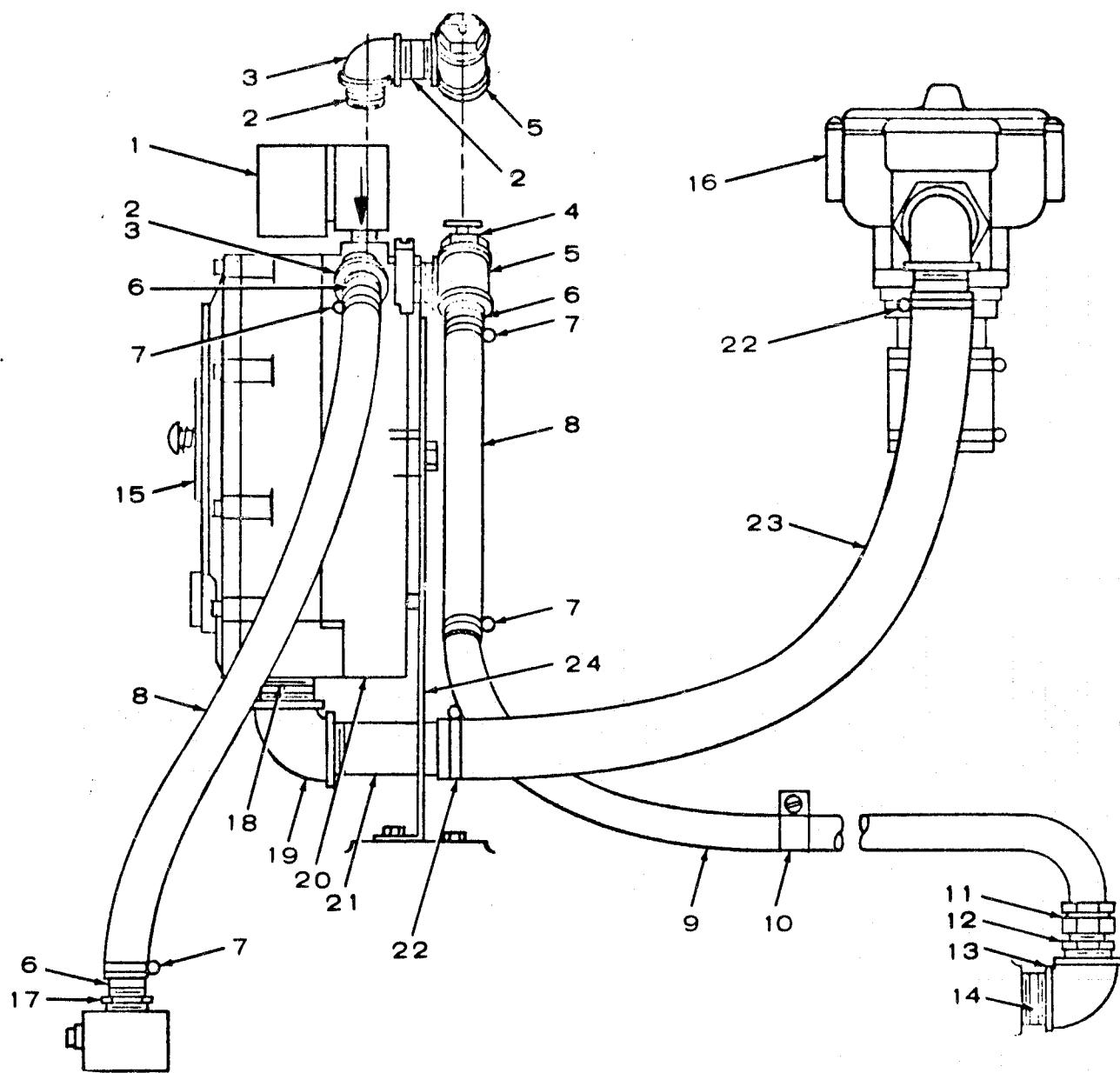
**OPTIONAL CARBURETOR AND REGULATOR ASSEMBLY
(NATURAL GAS AND LPG — MANUAL CHANGEOVER)**



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | 148-0592 | 1 | *Carburetor (Impco #200 with 1-3/4" Flange and 3/16" Air Horn) |
| 2 | 148-0601 | 1 | *Valve, Thermal (Impco #T-30) |
| 3 | 505-0102 | 1 | Nipple, Close (3/4 x 1-3/8") |
| 4 | 505-0129 | 1 | Bushing, Reducer (1 x 3/4") |
| 5 | 800-0071 | 2 | Screw, Cap - Hex Head (7/16-14 x 1") |
| 6 | 145-0358 | 1 | Adapter, Carburetor |
| 7 | 145-0328 | 1 | Body Assembly, Throttle |
| 8 | 150-0638 | 2 | Joint, Ball |
| 9 | 115-0025 | 4 | Nut, Hex (1/4-28") |
| 10 | 850-0040 | 1 | Washer, Lock - Spring (1/4") |
| 11 | 520-0629 | 1 | Stud |
| 13 | 148-0620 | 1 | Collar, Shaft |
| 14 | 850-0055 | 2 | Washer, Lock - Spring (7/16") |
| 15 | 145-0185 | 2 | Gasket |

* - For components contact your nearest Impco dealer or Impco Division, 16916 Gridley Place, Cerritos, California 90701.

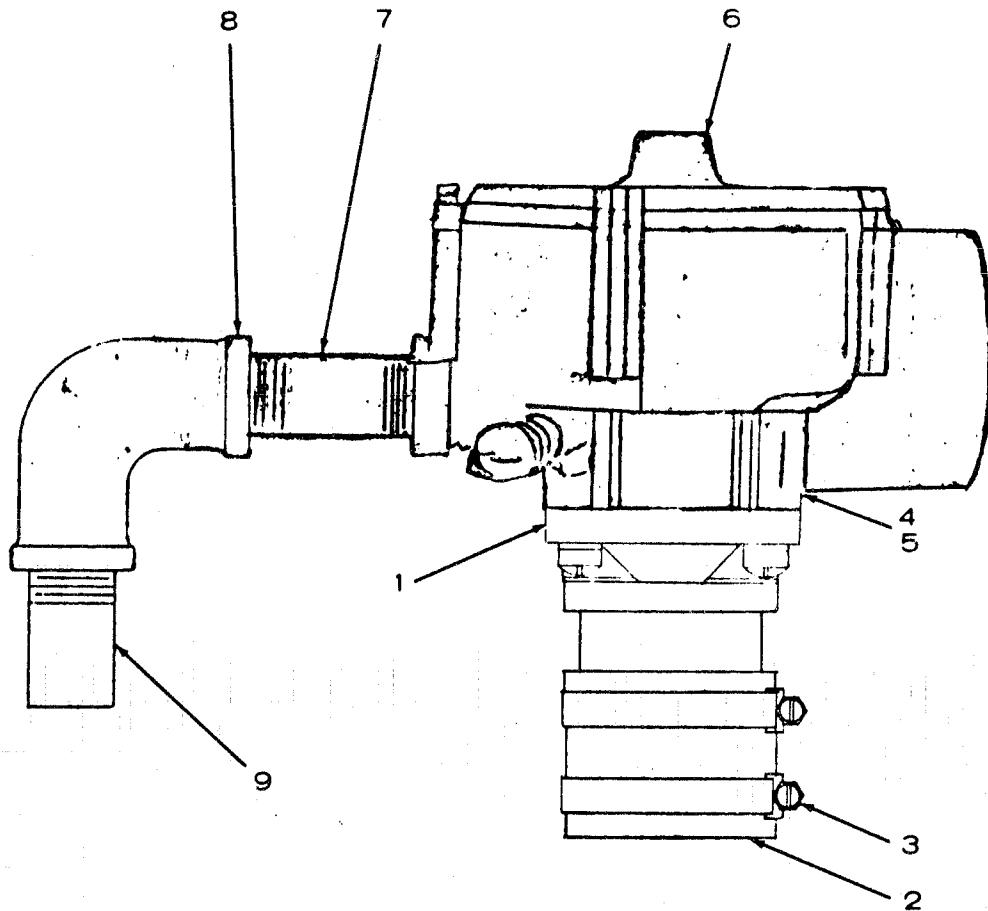
**OPTIONAL CARBURETOR AND CONVERTER ASSEMBLY
(GASOLINE - LPG LIQUID)**



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|---|----------|----------|-----------|--|
| 1 | 307-0268 | 1 | Valve, Solenoid | 16 | 148-0668 | 1 | Carburetor Regulator Assembly - LPG - See Optional |
| 2 | 505-0101 | 3 | Nipple, Pipe (3/8 x 1") | | | | Carburetor Assembly (Gasoline-LPG Liquid) |
| 3 | 505-0039 | 2 | Elbow, Pipe (3/8") | 17 | 505-0019 | 1 | Bushing, Reducer (1/2 x 3/8") |
| 4 | 504-0028 | 1 | Cock, Drain (3/8") | 18 | 505-0107 | 1 | Nipple, Short (1 x 2") |
| 5 | 505-0060 | 1 | Tee, Pipe (3/8") | 19 | 505-0356 | 1 | Elbow, Reducer (1 x 3/4") |
| 6 | 505-0135 | 3 | Nipple, Half (3/8") | 20 | 504-0005 | 1 | Cock, Drain |
| 7 | 503-0189 | 4 | Clamp, Hose | 21 | 505-0324 | 1 | Nipple, Half (3/4 x 2") |
| 8 | | 1 | Hose, Order 42" of Bulk Hose #503-0386 | 22 | 503-0382 | 2 | Clamp, Hose |
| 9 | 131-0192 | 1 | Line, Water | 23 | | 1 | Hose, Order 12" of Bulk Hose #503-0249 |
| 10 | 148-0274 | 1 | Clamp, Loop Type | 24 | 148-0631 | 1 | Bracket, Vaporizer |
| 11 | 502-0227 | 1 | Connector, Inverted Male | | | | |
| 12 | 505-0021 | 1 | Bushing, Reducer (3/4 x 1/2") | | | | |
| 13 | 505-0132 | 1 | Elbow, Pipe (3/4") | | | | |
| 14 | 505-0071 | 1 | Nipple, Pipe (3/4 x 1-1/4") | | | | |
| 15 | 148-0625 | 1 | *Converter Assembly, Gas (Impco Model EB) | | | | |

* - For components contact your nearest Impco dealer or Impco Division, 16916 Gridley Place, Cerritos, California 90701.

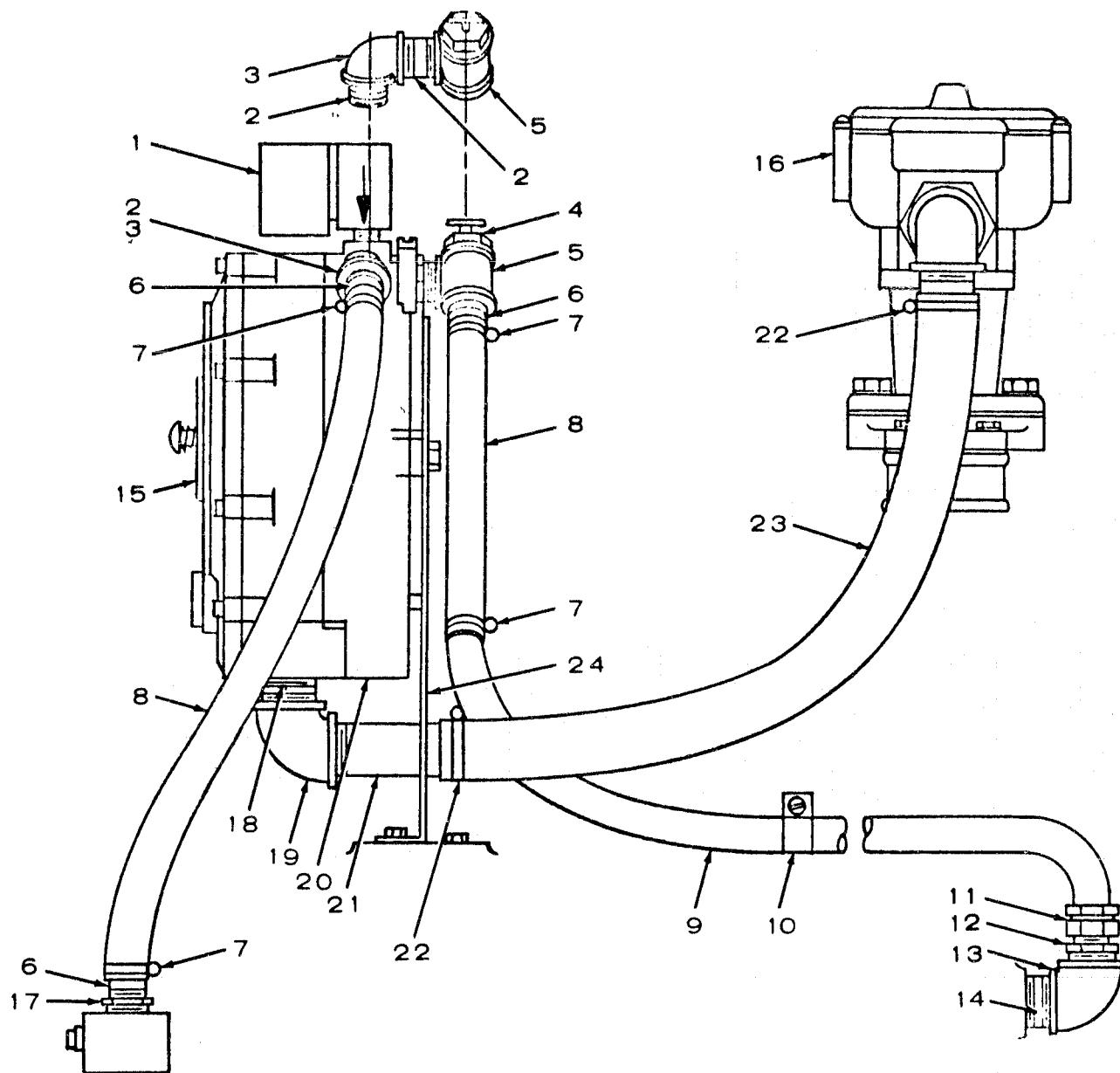
OPTIONAL CARBURETOR ASSEMBLY (GASOLINE - LPG LIQUID)



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 145-0396 | 1 | Adapter, Carburetor |
| 2 | 503-0550 | 1 | Adapter, Hose |
| 3 | 503-0354 | 2 | Clamp |
| 4 | | 1 | Gasket (Supplied with Mixer - Impco #G1-21) |
| 5 | | 4 | Screw (Supplied with Mixer - Impco #51-14) |
| 6 | 148-0598 | 1 | *Carburetor Mixer (Impco #200 with 3-1/16" Air Horn) |
| 7 | 505-0102 | 1 | Nipple (3/4 x 1-3/8") |
| 8 | 505-0132 | 1 | Elbow (3/4" x 90°) |
| 9 | 505-0324 | 1 | Nipple, Half (3/4 x 2") |

* - For components contact your nearest Impco dealer
or Impco Division, 16916 Gridley Place, Cerritos,
California 90701.

OPTIONAL CARBURETOR AND CONVERTER ASSEMBLY (LPG LIQUID)

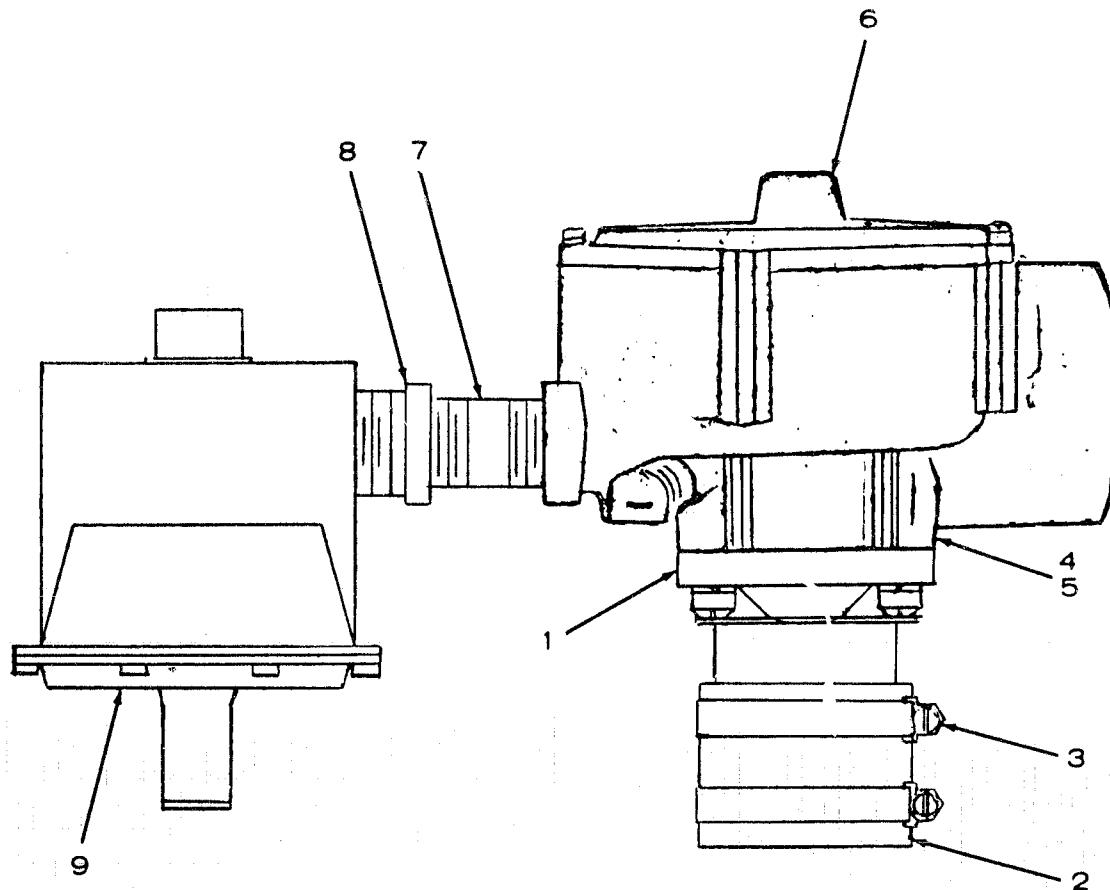


| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|---|
| 1 | 307-0268 | 1 | Valve, Solenoid |
| 2 | 505-0101 | 3 | Nipple, Pipe (3/8 x 1") |
| 3 | 505-0039 | 2 | Elbow, Pipe (3/8") |
| 4 | 504-0028 | 1 | Cock, Drain (3/8") |
| 5 | 505-0060 | 1 | Tee, Pipe (3/8") |
| 6 | 505-0135 | 3 | Nipple, Half (3/8") |
| 7 | 503-0189 | 4 | Clamp, Hose |
| 8 | | 1 | Hose, Order 42" of Bulk Hose #503-0386 |
| 9 | 131-0192 | 1 | Line, Water |
| 10 | 148-0274 | 1 | Clamp, Loop Type |
| 11 | 502-0227 | 1 | Connector, Inverted Male |
| 12 | 505-0021 | 1 | Bushing, Reducer (3/4 x 1/2") |
| 13 | 505-0040 | 1 | Elbow, Pipe (1/2") |
| 14 | 505-0106 | 1 | Nipple, Pipe (1/2 x 1-1/2") |
| 15 | 148-0625 | 1 | *Converter Assembly, Gas (Impco model EB) |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|---|
| 16 | 148-0693 | 1 | Carburetor and Regulator Solenoid Assembly, LPG (See Optional Carburetor Assembly LPG Liquid) |
| 17 | 505-0019 | 1 | Bushing, Reducer (1/2 x 3/8") |
| 18 | 505-0107 | 1 | Nipple, Short (1 x 2") |
| 19 | 505-0356 | 1 | Elbow, Reducer (1 x 3/4") |
| 20 | 504-0005 | 1 | Cock, Drain |
| 21 | 505-0324 | 1 | Nipple, Half (3/4 x 2") |
| 22 | 503-0382 | 2 | Clamp, Hose |
| 23 | | 1 | Hose, Order 12" of Bulk Hose #503-0249 |
| 24 | 148-0631 | 1 | Bracket, Vaporizer |

* - For components contact your nearest Impco dealer or Impco Division, 16916 Gridley Place, Cerritos, California 90701.

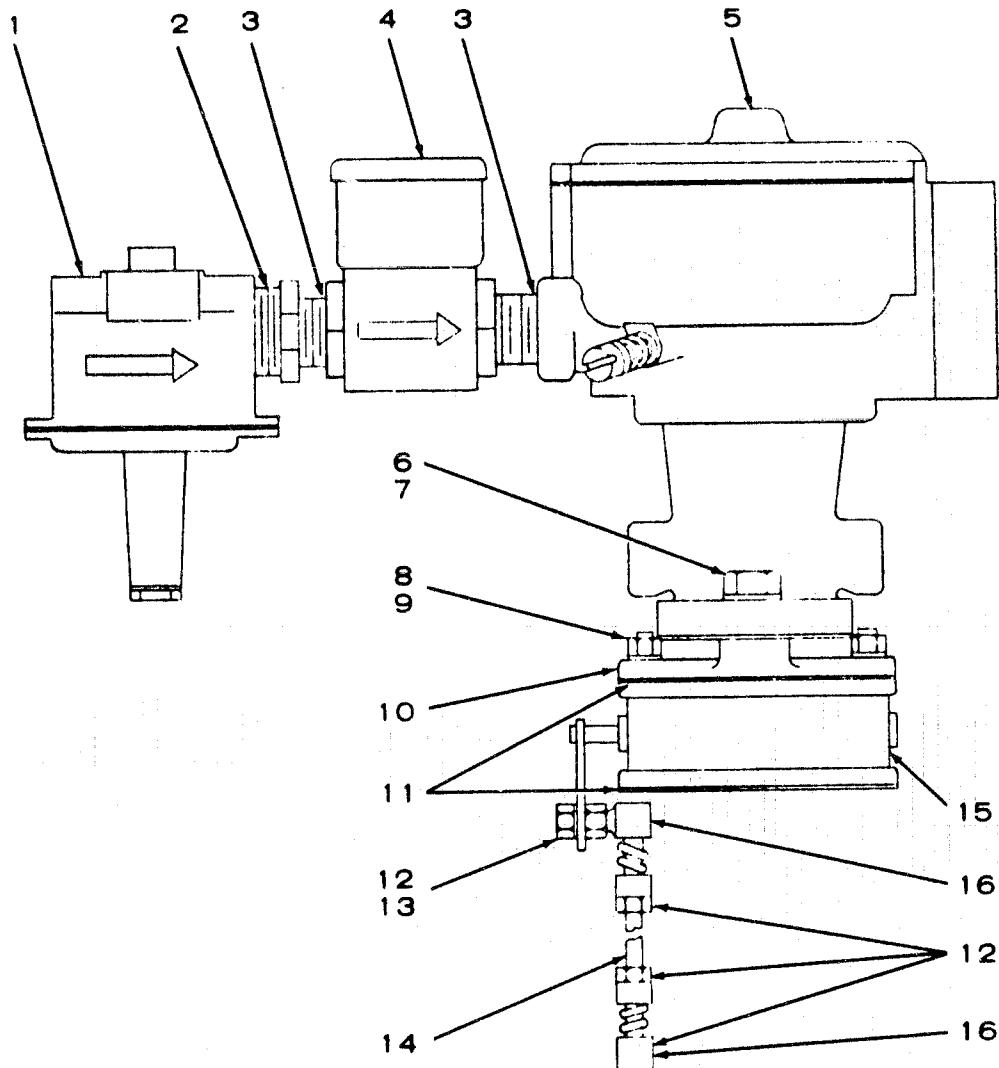
**OPTIONAL CARBURETOR AND REGULATOR ASSEMBLY
(NATURAL GAS — GASOLINE)**



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 145-0396 | 1 | Adapter, Carburetor |
| 2 | 503-0550 | 1 | Adapter, Hose |
| 3 | 503-0354 | 2 | Clamp |
| 4 | | 1 | Gasket (Supplied with Mixer) - Impco #G7-21 |
| 5 | | 4 | Screw (Supplied with Mixer) - Impco #51-19 |
| 6 | 148-0598 | 1 | *Carburetor Mixer - (Impco #200 with 3-1/16" Air Horn) |
| 7 | 505-0102 | 1 | Nipple (3/4 x 1-3/8") |
| 8 | 505-0129 | 1 | Bushing, Reducer (1 x 3/4") |
| 9 | 148-0601 | 1 | *Regulator - Natural Gas (Impco #T-30) |

* - For components contact your nearest Impco dealer
or Impco Division, 16916 Gridley Place, Cerritos,
California 90701.

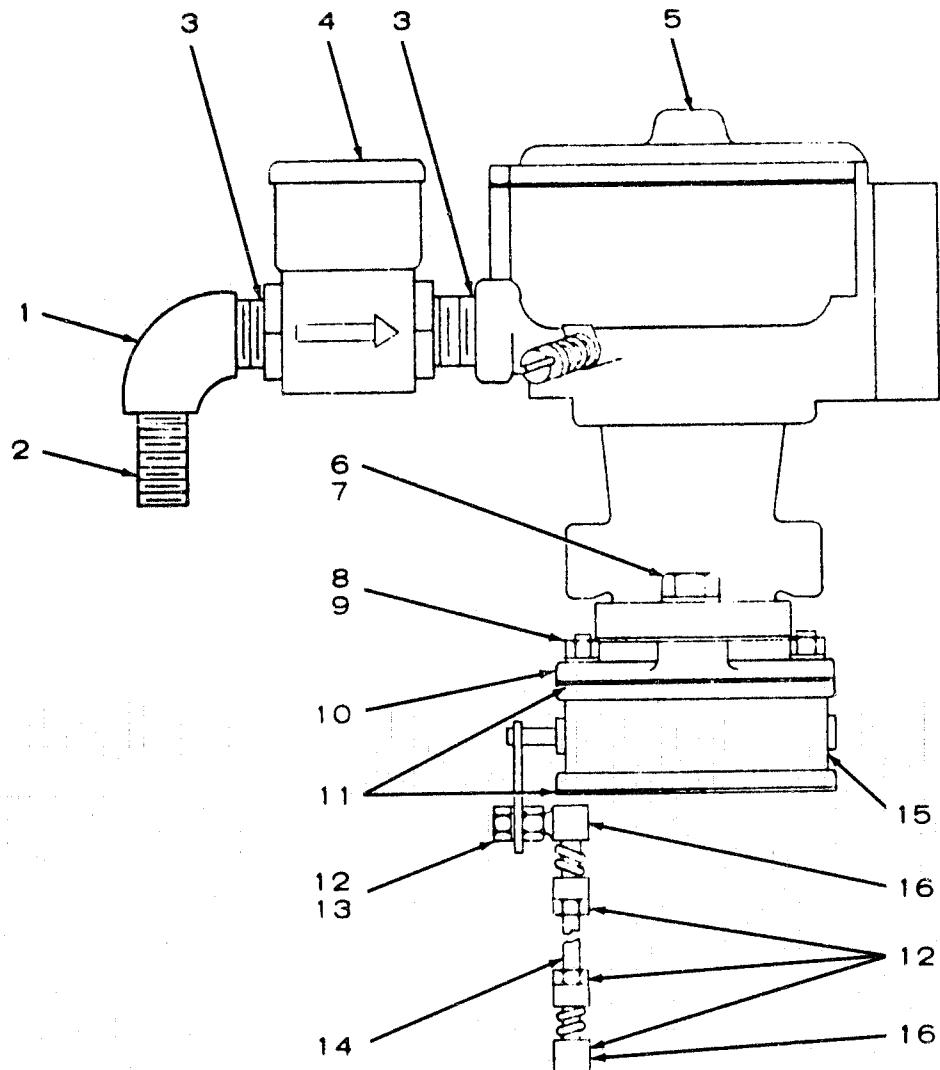
OPTIONAL CARBURETOR AND REGULATOR ASSEMBLY (LPG VAPOR)



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | 148-0636 | 1 | *Regulator, Natural Gas (Impco #T-30 Less Pressure Spring) |
| 2 | 505-0129 | 1 | Bushing, Reducing (3/4 x 1") |
| 3 | 505-0102 | 2 | Nipple, Close (3/4 x 1-3/8") |
| 4 | 307-0312 | 1 | Valve, Magnetic (3/4") |
| 5 | 148-0592 | 1 | *Carburetor - Natural Gas (Impco #200 with 1-3/4" Flange & 3-1/16" Air Horn) |
| 6 | 800-0071 | 2 | Screw, Cap - Hex Head (7/16-14 x 1") |
| 7 | 850-0055 | 2 | Washer, Lock - Spring (7/16") |
| 8 | 110-0445 | 4 | Nut, Hex (5/16-24) |
| 9 | 850-0045 | 4 | Washer, Lock - Spring (5/16") |
| 10 | 145-0358 | 1 | Adapter, Carburetor |
| 11 | 145-0185 | 2 | Gasket, Carburetor Flange |
| 12 | 115-0025 | 4 | Nut, Hex (1/4-28") |
| 13 | 850-0040 | 1 | Washer, Lock - Spring (1/4") |
| 14 | 520-0517 | 1 | Stud (1/4-28 x 7") |
| 15 | 145-0410 | 1 | Body Assembly, Throttle |
| 16 | 150-0638 | 2 | Joint, Ball (1/4-28") |

* - For components contact your nearest Impco dealer
or Impco Division, 16916 Gridley Place, Cerritos,
California 90701.

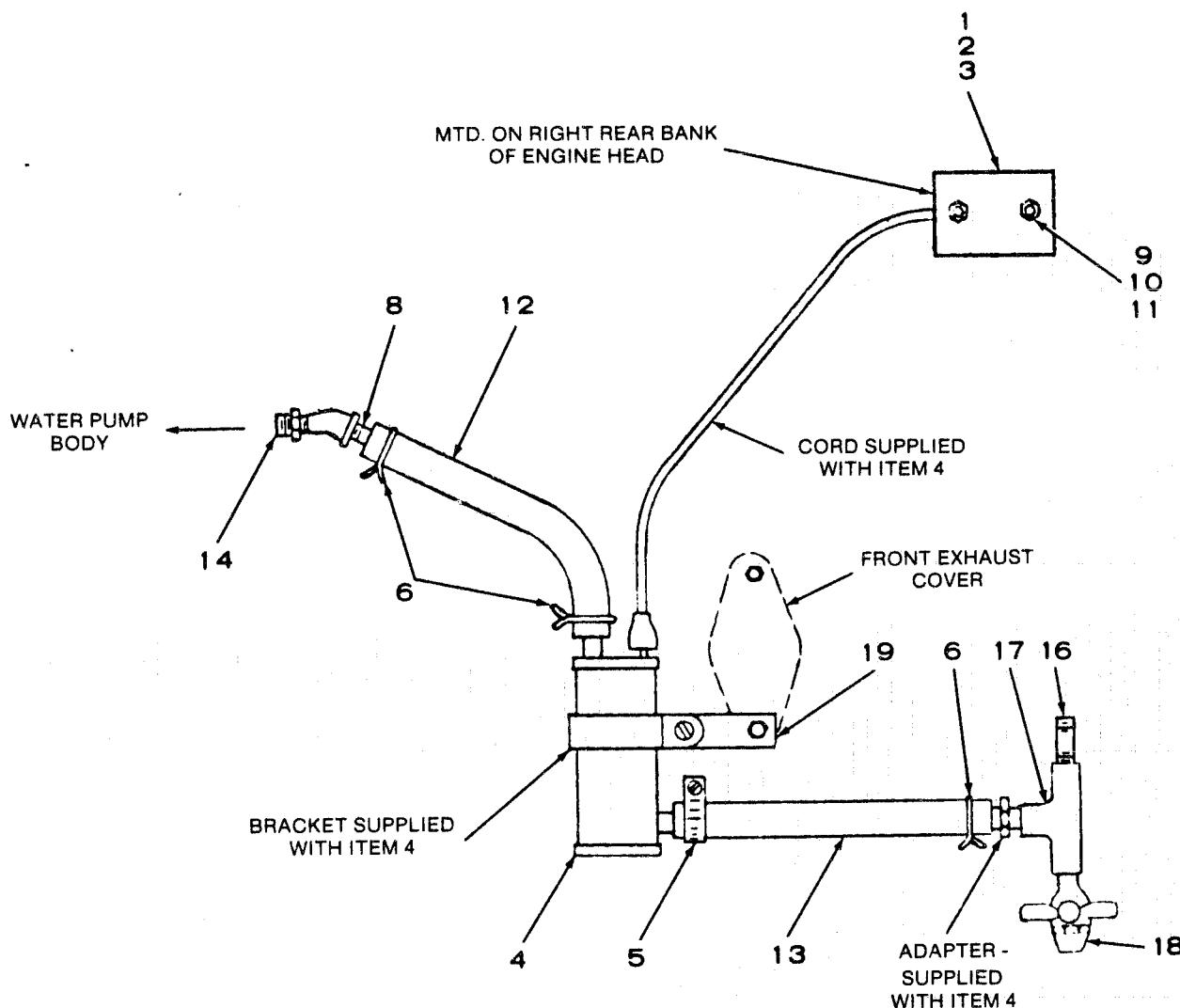
OPTIONAL CARBURETOR AND REGULATOR ASSEMBLY (LPG LIQUID)



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | 505-0132 | 1 | Elbow (3/4") |
| 2 | 505-0324 | 1 | Nipple, Half (3/4 x 2") |
| 3 | 505-0102 | 2 | Nipple, Close (3/4 x 1-3/8") |
| 4 | 307-0312 | 1 | Valve, Magnetic (3/4") |
| 5 | 148-0592 | 1 | *Carburetor, Natural Gas (Impco #200) |
| 6 | 800-0071 | 2 | Screw, Cap - Hex Head (7/16-14") |
| 7 | 850-0055 | 2 | Washer, Lock - Spring (7/16") |
| 8 | 110-0445 | 4 | Nut, Hex (5/16-24) |
| 9 | 850-0045 | 4 | Washer, Lock - Spring (5/16") |
| 10 | 145-0358 | 1 | Adapter, Carburetor |
| 11 | 145-0185 | 2 | Gasket, Carburetor Flange |
| 12 | 115-0025 | 4 | Nut, Hex (1/4-28") |
| 13 | 850-0040 | 1 | Washer, Lock - Spring (1/4") |
| 14 | 520-0517 | 1 | Stud (1/4-28 x 9-7/8") |
| 15 | 145-0410 | 1 | Body Assembly, Throttle |
| 16 | 150-0638 | 2 | Joint, Ball (1/4-28") |

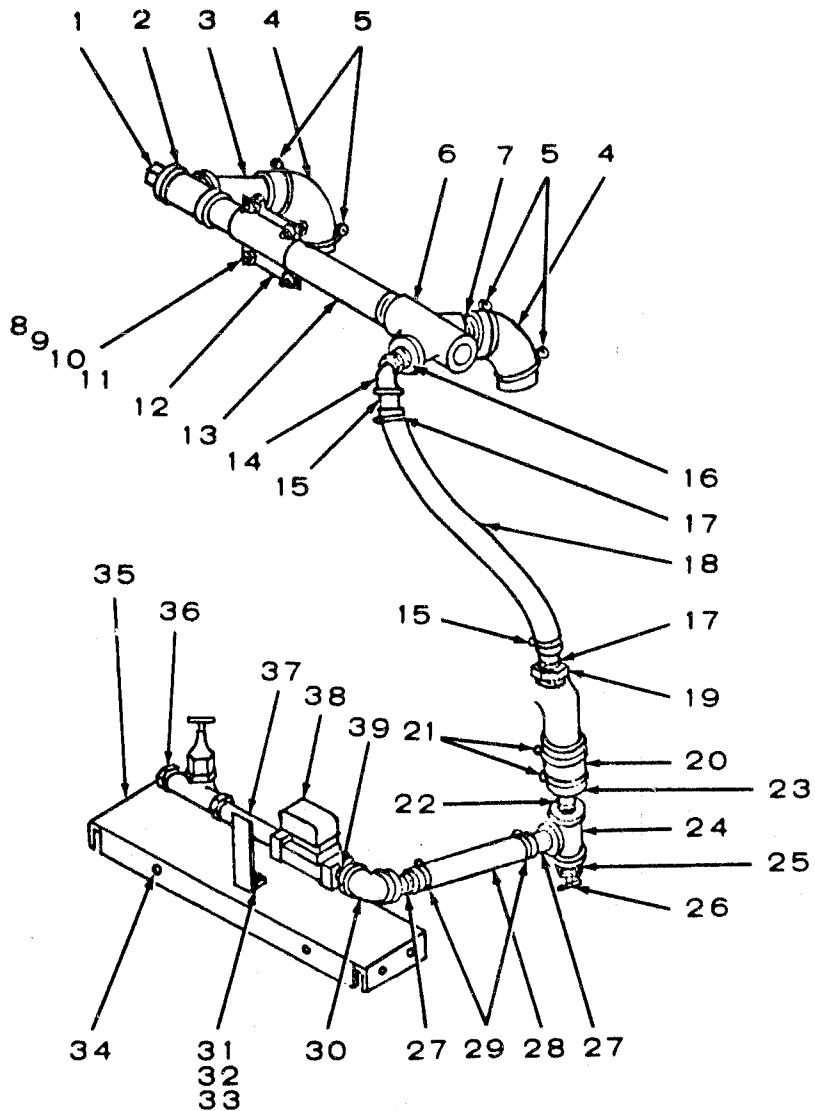
* - For components contact your nearest Impco dealer
or Impco Division, 16916 Gridley Place, Cerritos,
California 90701.

**WATER JACKET HEATER (120 VOLTS) INSTALLATION
PRIOR TO SERIAL #A780294689 DURING SPEC T**



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | 309-0106 | 1 | Thermostat |
| 2 | 333-0012 | 1 | Box, Thermostat |
| 3 | 333-0013 | 1 | Cover, Thermostat Box |
| 4 | 333-0052 | 1 | Heater |
| 5 | 503-0183 | 1 | Clamp, Hose |
| 6 | 503-0131 | 3 | Clamp, Hose |
| 8 | 505-0135 | 1 | Nipple, Half (3/8 x 1-1/2") |
| 9 | 520-0446 | 2 | Stud |
| 10 | 870-0053 | 2 | Nut, Hex (#10-32) |
| 11 | 850-0030 | 2 | Washer, Lock - Spring (#10) |
| 12 | | 1 | Hose - Order 12" of Bulk Hose #503-0386 |
| 13 | | 1 | Hose - Order 11" of Bulk Hose #503-0386 |
| 14 | 505-0019 | 1 | Bushing, Reducer (1/2 x 3/8") |
| 16 | 505-0101 | 1 | Nipple, Close (1/4") |
| 17 | 505-0184 | 1 | Tee (1/4") |
| 18 | 504-0003 | 1 | Valve, Drain |
| 19 | 130-0755 | 1 | Bracket |

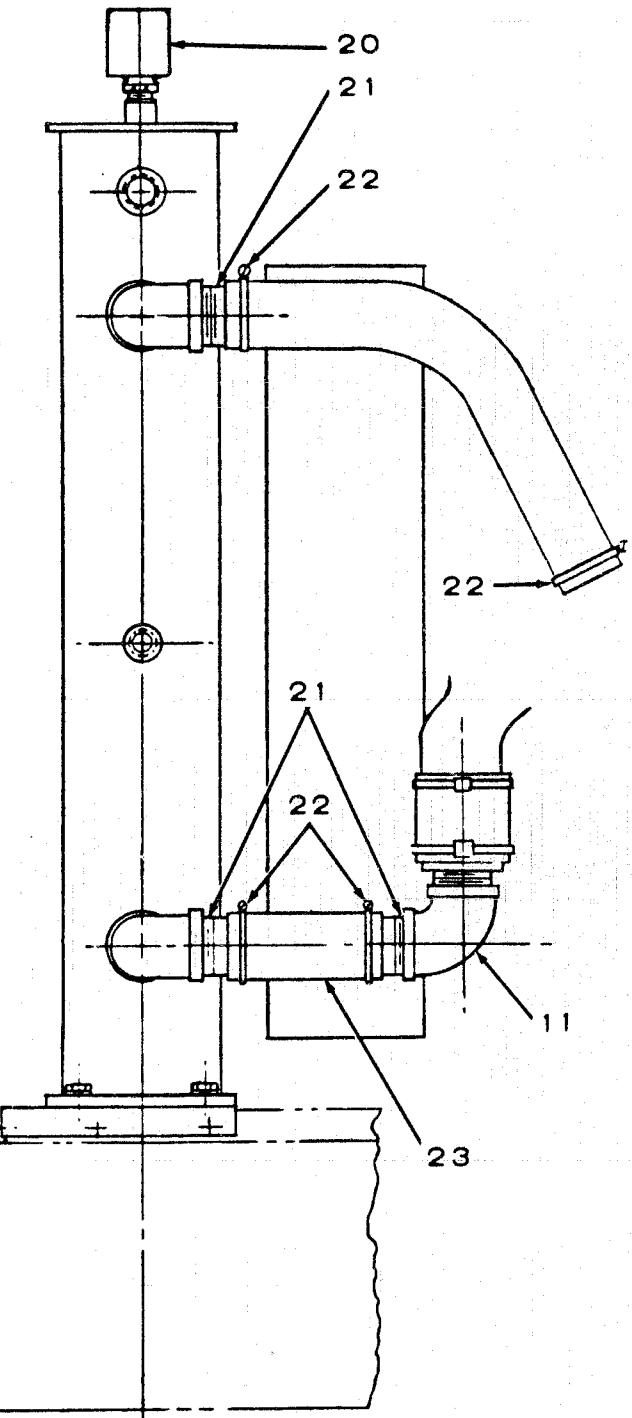
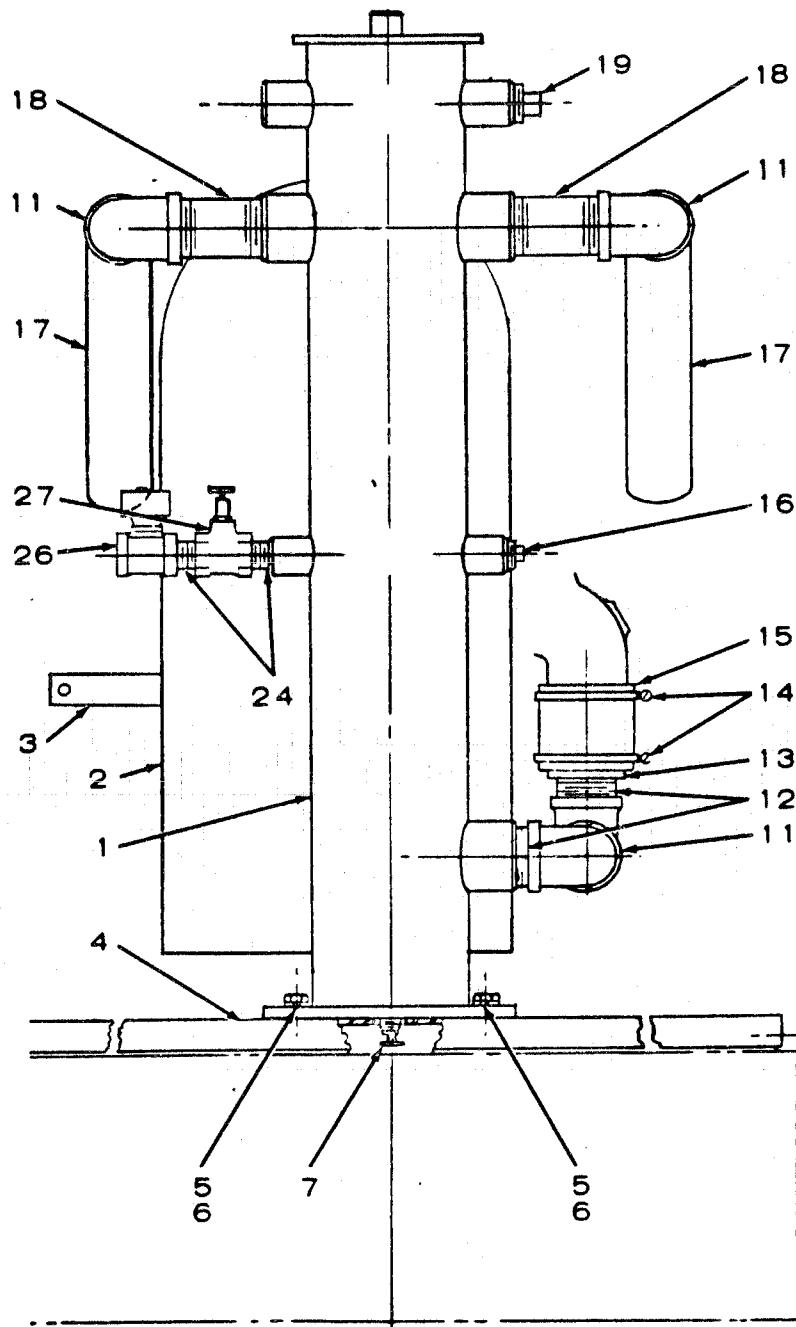
CITY WATER COOLED (UNHOUSED MODELS) INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | |
|-------------|-------------|--------------|---|--------------------------------|-------------|--------------|---|--|
| 1 | 505-0402 | 1 | Plug, Square Head | 22 | 505-0085 | 1 | Nipple, Pipe (3/4 x 2") | |
| 2 | 505-0317 | 1 | Tee, Pipe (1-1/2") | 23 | 130-0452 | 1 | Fitting, Water Inlet | |
| 3 | 505-0474 | 1 | Nipple, Half (1-1/2 x 5") | 24 | 505-0166 | 1 | Tee, Pipe (3/4") | |
| 4 | 503-0364 | 2 | Hose, Radiator | 25 | 505-0131 | 1 | Bushing, Reducer (3/4 x 3/8") | |
| 5 | 503-0365 | 4 | Clamp, Hose | 26 | 504-0028 | 1 | Cock, Drain | |
| 6 | 505-0398 | 1 | Tee, Side Outlet (1-1/2") | 27 | 505-0324 | 2 | Nipple, Half (3/4 x 2") | |
| 7 | 505-0272 | 1 | Nipple, Half (1-1/2 x 4") | 28 | | 1 | Hose - Order 8" of Bulk Hose #503-0249 | |
| 8 | 800-0028 | 4 | Screw, Cap - Hex Head (5/16-18 x 1") | 29 | 503-0189 | 2 | Clamp, Hose | |
| 9 | 862-0002 | 4 | Nut, Hex (5/16-18) | 30 | 505-0132 | 1 | Elbow, Pipe (3/4 x 90") | |
| 10 | 850-0045 | 4 | Washer, Lock - Spring (5/16") | 31 | 800-0023 | 2 | Screw, Cap - Hex Head (1-4-20 x 3/8") | |
| 11 | 526-0115 | 4 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) | 32 | 862-0001 | 2 | Nut, Hex (1-4-20") | |
| 12 | 130-0488 | 1 | Clamp, Pipe | 33 | 850-0040 | 2 | Washer, Lock - Spring (1/4") | |
| 13 | 505-0424 | 1 | Nipple, Pipe (1-1/2 x 16-1/2") | 34 | 821-0014 | 8 | Screw, Cap - Locking Head (5/16-18 x 2") | |
| 14 | 505-0011 | 1 | Elbow, Street (1/4") | 35 | 130-0499 | 1 | Bracket, Heat Exchanger | |
| 15 | 505-0010 | 2 | Nipple, Half (1/4 x 1") | 36 | 504-0046 | 1 | Valve, Globe | |
| 16 | 505-0426 | 1 | Bushing, Reducer (1-1/2 x 1/4") | 37 | 110-0810 | 1 | Bracket & Nipple | |
| 17 | 503-0032 | 2 | Clamp, Hose | 38 | 307-0835 | 1 | Valve, Solenoid | |
| 18 | | 1 | Hose - Order 16-1/4" of Bulk Hose #503-0110 | 39 | 505-0102 | 1 | Nipple, Close (3/4") | |
| 19 | 505-0018 | 1 | Bushing, Reducer (1/2 x 1/4") | | 130-0454 | 1 | *Guard, Belt | |
| 20 | 503-0828 | 1 | Hose | | 130-0455 | 1 | *Bracket, Belt Guard | |
| 21 | 503-0354 | 2 | Clamp, Hose | * - Not shown in illustration. | | | | |

* - Not shown in Illustration.

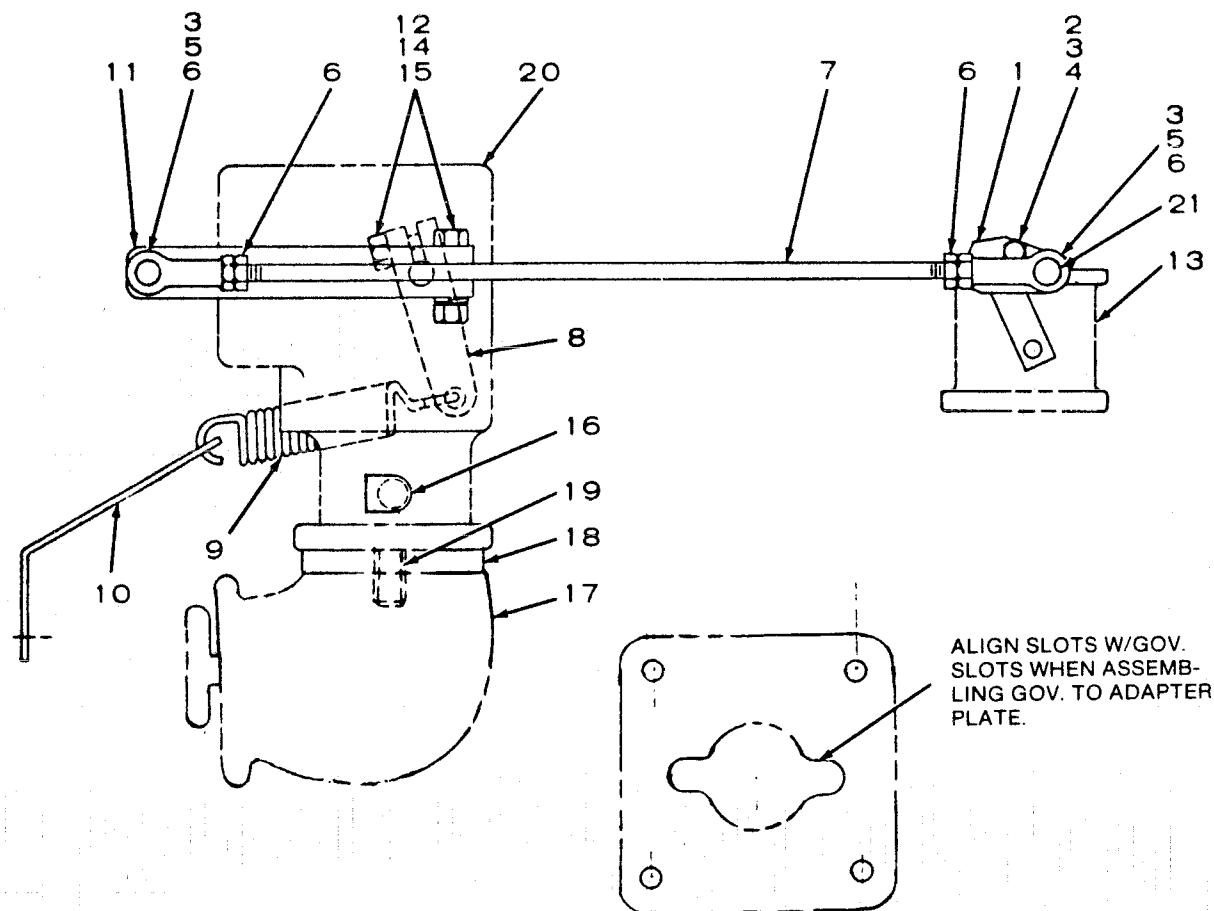
STANDPIPE INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 130-0635 | 1 | Standpipe |
| 2 | 130-0454 | 1 | Guard, Belt |
| 3 | 130-0455 | 1 | Bracket, Belt Guard |
| 4 | 130-0636 | 1 | Bracket, Standpipe Mounting |
| 5 | 850-0050 | 4 | Washer, Lock - Spring (3/16") |
| 6 | 800-0050 | 4 | Screw, Cap - Hex Head (3/8-16 x 1") |
| 7 | 504-0028 | 1 | Cock, Drain |
| 11 | 505-0043 | 4 | Elbow (1-1/2" x 90°) |
| 12 | 505-0220 | 2 | Nipple, Close (1-1/2 x 1-3/4") |
| 13 | 130-0478 | 1 | Fitting, Water Inlet |
| 14 | 503-0354 | 2 | Clamp, Hose |
| 15 | | 1 | Hose - Order 3" of Bulk Hose #503-0357 |

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 16 | 505-0130 | 1 | Plug, Square Head (3/4") |
| 17 | 503-0332 | 2 | Hose, Radiator Upper |
| 18 | 505-0261 | 2 | Nipple (1-1/2 x 4-1/2") |
| 19 | 505-0140 | 1 | Plug, Square Head (1") |
| 20 | 504-0062 | 1 | Valve, Vacuum Relief |
| 21 | 505-0444 | 4 | Nipple, Half (1-1/2 x 2-1/4") |
| 22 | 503-0365 | 6 | Clamp, Hose |
| 23 | | 1 | Hose - Order 7" of Bulk Hose #503-0411 |
| 24 | 505-0102 | 2 | Nipple, Close (3/4") |
| 25 | 307-0835 | 1 | Valve |
| 26 | 504-0046 | 1 | Valve, Lockheed |

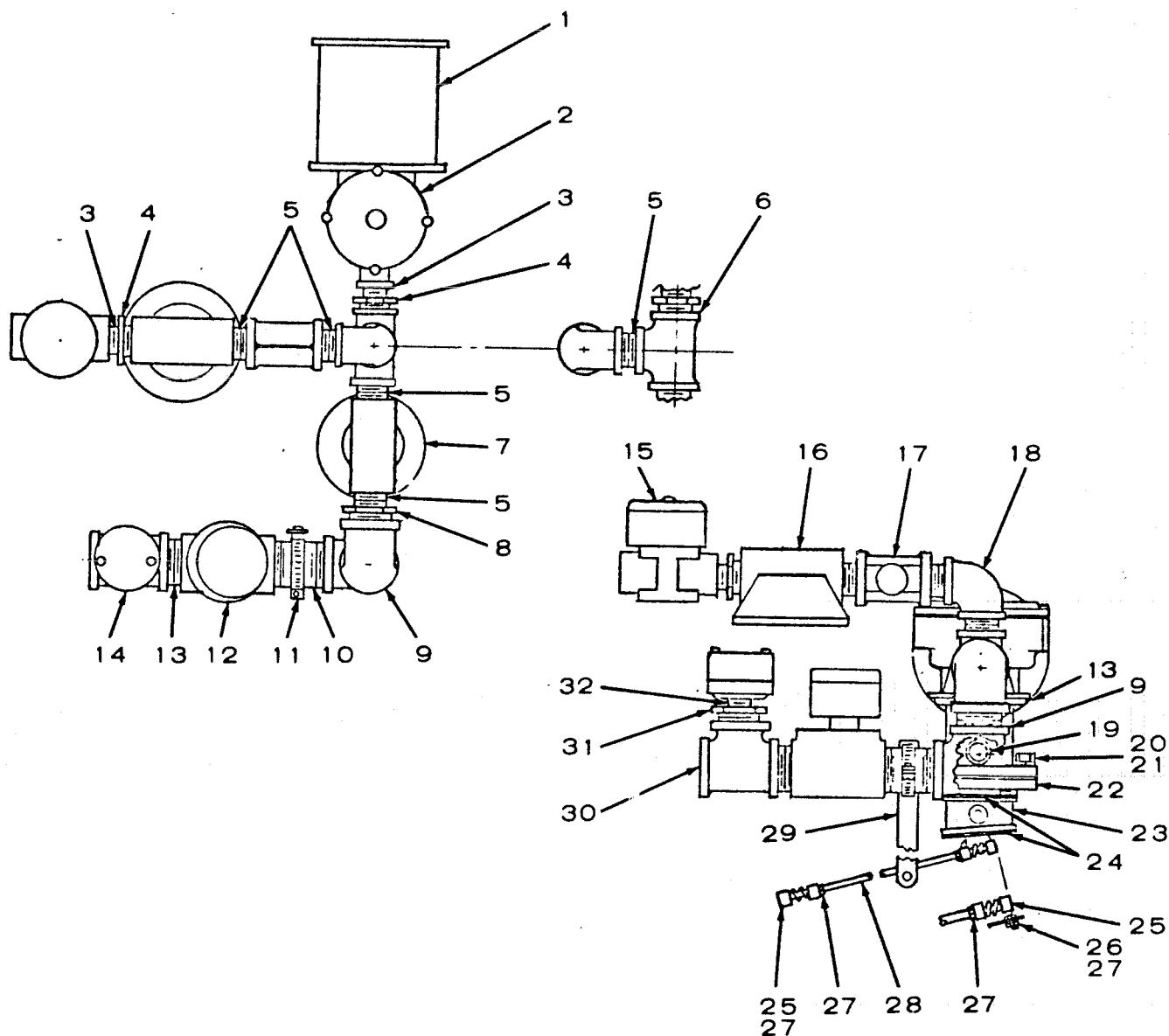
OPTIONAL HYDRAULIC GOVERNOR INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 145-0375 | 1 | Link, Throttle Lever Extension |
| 2 | 800-0003 | 2 | Screw, Cap - Hex Head (1/4-20 x 1/2") |
| 3 | 850-0040 | 4 | Washer, Lock - Spring (1/4") |
| 4 | 862-0001 | 2 | Nut, Hex (1/4-20") |
| 5 | 150-1036 | 2 | Joint, Governor Ball |
| 6 | 115-0025 | 4 | Nut, Hex (1/4-28") |
| 7 | 520-0515 | 1 | Stud, Governor Control |
| 8 | 151-0332 | 1 | Arm, Governor Spring Mounting |
| 9 | 150-0698 | 1 | Spring, Governor |
| 10 | 151-0325 | 1 | Bracket, Governor Spring Mounting |
| 11 | 151-0331 | 1 | Arm, Governor |
| 12 | 800-0031 | 2 | Screw, Cap - Hex Head (5/16-18 x 1-1/2") |
| 13 | 145-0441 | 1 | Body, Throttle |
| 14 | 850-0045 | 2 | Washer, Lock - Spring (5/16") |
| 15 | 862-0015 | 2 | Nut, Hex (5/16-18") |
| 16 | 502-0246 | 1 | Elbow, 3/8" Inverted 1/8" Pipe |
| 17 | 151-0296 | 1 | Drive Kit, Governor |
| 18 | 151-0299 | 1 | Spacer, Drive |
| 19 | 151-0300 | 1 | Coupling, Drive |
| 20 | 151-0319 | 1 | Governor, Hydraulic |
| 21 | 812-0155 | 1 | Screw, Machine - Roundhead (1/4-20 x 1-1/4") |
| | 502-0106 | 1 | *Connector, 3/8" Inverted 1/8" Pipe |
| | 504-0077 | 1 | *Valve, Check |
| | 120-0654 | 1 | *Line, Oil |

* - Not shown in illustration.

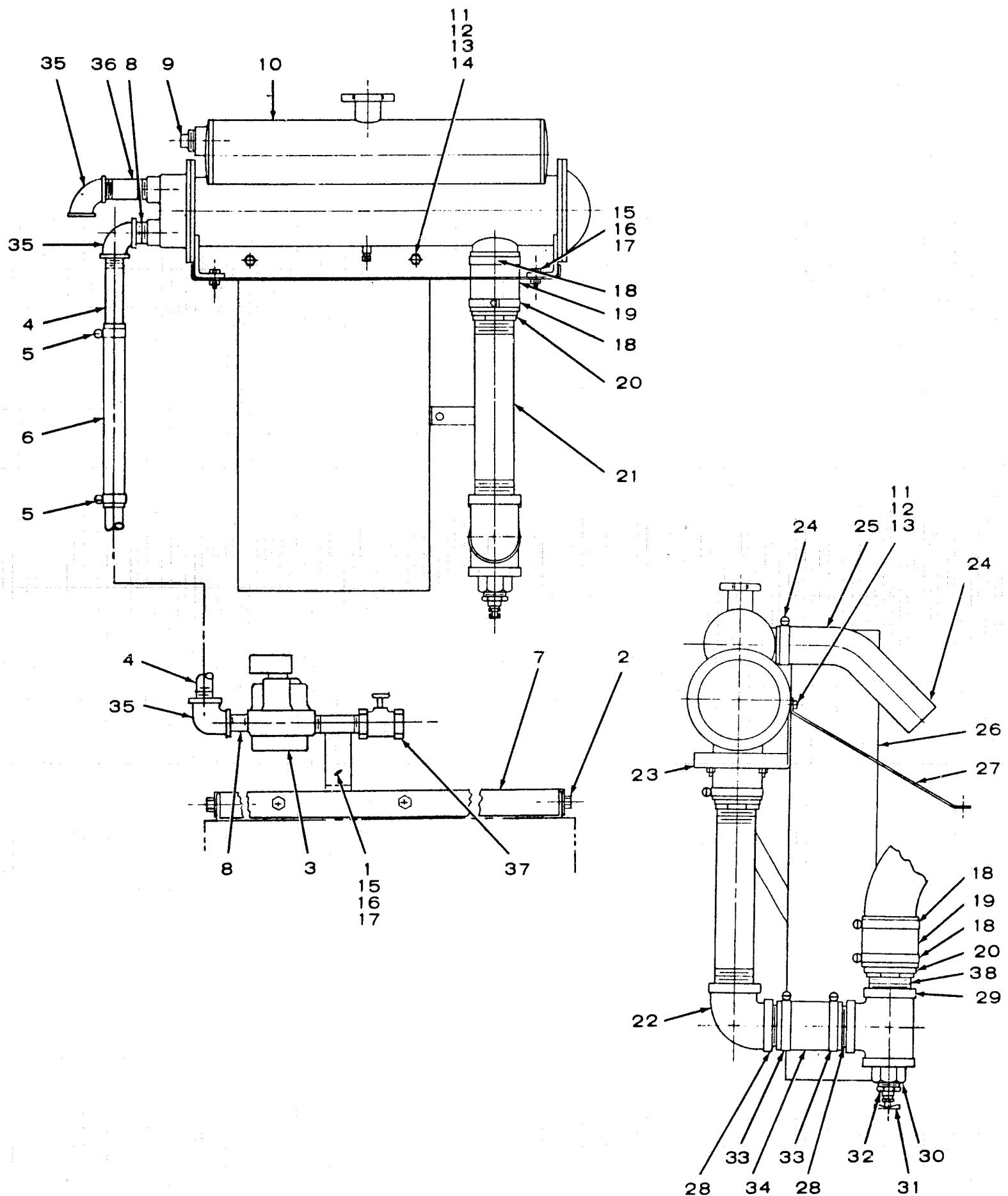
OPTIONAL NATURAL GAS AND LPG VAPOR (AUTOMATIC CHANGEOVER) INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|-------------|-------------|--------------|--|
| 1 | 140-0851 | 1 | Air Cleaner | 17 | 148-0626 | 1 | *Valve, Adjustment (Impco #AB1-32 - 1") |
| 2 | 148-0592 | 1 | *Carburetor (Impco #200 with 1-3/4" Flange & 3-1/16" Air Hose) | 18 | 505-0041 | 1 | Elbow (1 x 90°), Pipe |
| 3 | 505-0102 | 2 | Nipple, Close (3/4") | 19 | 148-0620 | 1 | Collar, Shaft |
| 4 | 505-0129 | 2 | Bushing, Reducer (1 x 3/4") | 20 | 850-0055 | 2 | Washer, Lock - Spring (7/16") |
| 5 | 505-0004 | 5 | Nipple, Close (1") | 21 | 800-0071 | 2 | Screw, Cap - Hex Head (7/16-14 x 1") |
| 6 | 505-0304 | 1 | Tee (1"), Pipe | 22 | 145-0358 | 1 | Adapter, Carburetor |
| 7 | 148-0601 | 1 | *Valve, Pressure Reduction (Impco #T-30) | 23 | 145-0410 | 1 | Body Assembly, Throttle |
| 8 | 505-0023 | 1 | Bushing, Reducer (1-1/4" x 1") | 24 | 145-0185 | 2 | Gasket |
| 9 | 505-0042 | 2 | Elbow (1-1/4 x 90°), Pipe | 25 | 150-0638 | 2 | Joint, Ball |
| 10 | 505-0258 | 1 | Nipple (1-1/4 x 3"), Pipe | 26 | 850-0040 | 1 | Washer, Lock - Spring (1/4") |
| 11 | 331-0101 | 1 | Hanger (1-1/4") | 27 | 115-0025 | 4 | Nut, Hex (1/4-28) |
| 12 | 307-0837 | 1 | Valve, Solenoid | 28 | 520-0517 | 1 | Stud |
| 13 | 505-0177 | 2 | Nipple, Close (1-1/4") | 29 | 191-0101 | 1 | Strap, Generator Adjusting |
| 14 | 148-0627 | 1 | *Switch, Pressure (Impco #AP-153-R33) | 30 | 505-0249 | 1 | Tee (1-1/4") |
| 15 | 307-0312 | 1 | Valve, Magnetic | 31 | 505-0766 | 1 | Bushing, Reducer (1-1/4 x 1") |
| 16 | 148-0636 | 1 | *Valve, Pressure Reduction (Impco #T-30 Less Pressure Spring) | 32 | 505-0099 | 1 | Nipple, Close (1/4") |

* - For components contact your nearest Impco dealer
or Impco Division, 16916 Gridley Place, Cerritos,
California 90701

HEAT EXCHANGER INSTALLATION

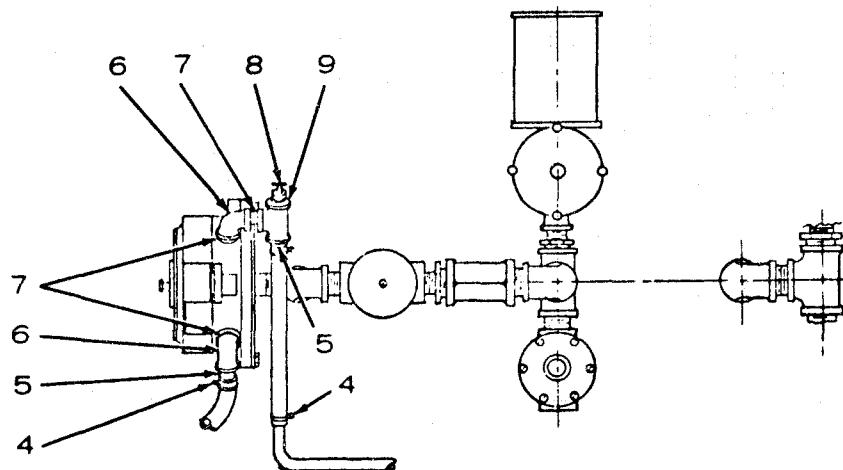
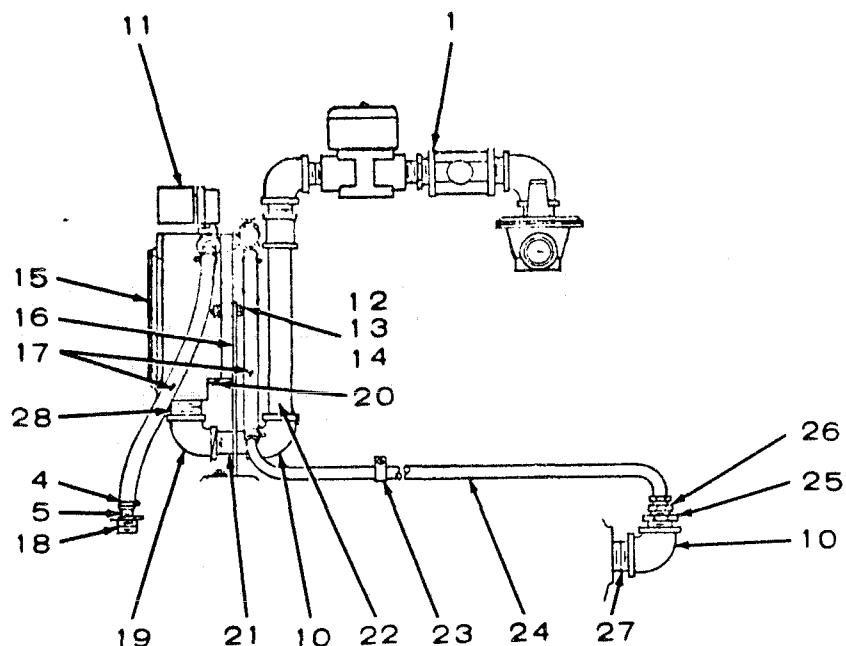


D1

HEAT EXCHANGER INSTALLATION

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|--|
| 1 | 130-0797 | 1 | Bracket and Nipple | 19 | | 2 | Hose (Order 4" of Bulk Hose 503-0357) |
| 2 | 821-0014 | 6 | Screw, Cap - Locking Head (5/16-18 x 1/2") | 20 | 130-0478 | 2 | Fitting, Water Inlet |
| 3 | 307-1139 | 1 | Valve, Solenoid | 21 | 505-0095 | 1 | Nipple |
| 4 | 505-0089 | 2 | Nipple, Half | 22 | 505-0043 | 1 | Elbow |
| 5 | 503-0004 | 2 | Clamp, Hose | 23 | 130-0752 | 1 | Bracket, Heat Exchanger |
| 6 | | 1 | Hose (12" of Bulk Hose 503-0361) | 24 | 503-0311 | 2 | Clamp, Hose |
| 7 | 130-0499 | 1 | Bracket, Heat Exchanger | 25 | 503-0332 | 2 | Hose, Radiator |
| 8 | 505-0004 | 2 | Nipple, Close | 26 | 130-0454 | 1 | Guard, Belt |
| 9 | 505-0140 | 1 | Plug, Pipe | 27 | 130-0751 | 1 | Brace |
| 10 | 130-0753 | 1 | Exchanger, Heat | 28 | 505-0385 | 2 | Nipple, Half |
| 11 | 800-0050 | 5 | Screw, Cap - Hex Head (3/8-16 x 1") | 29 | 505-0317 | 1 | Tee, Pipe |
| 12 | 850-0050 | 5 | Washer, Lock - Spring (3/8") | 30 | 505-0399 | 1 | Bushing, Reducer |
| 13 | 862-0003 | 5 | Nut, Hex (3/8-16) | 31 | 504-0028 | 1 | Drain, Cock |
| 14 | 526-0029 | 4 | Washer, Flat (25/64" ID x 7/8" OD x 1/16" Thk) | 32 | 505-0019 | 1 | Bushing, Reducer |
| 15 | 800-0007 | 6 | Screw, Cap - Hex Head (1/4-20 x 1") | 33 | 503-0365 | 2 | Clamp, Hose |
| 16 | 850-0004 | 6 | Washer, Lock - Spring (1/4") | 34 | 503-0411 | 1 | Hose (Order 4" of Bulk Hose 503-0411) |
| 17 | 862-0001 | 6 | Nut, Hex (1/4-20) | 35 | 505-0041 | 3 | Elbow |
| 18 | 503-0354 | 4 | Clamp, Hose | 36 | 505-0086 | 1 | Nipple |
| | | | | 37 | 504-0090 | 1 | Valve, Globe |
| | | | | 38 | 505-0220 | 1 | Nipple, Close |
| | | | | | 130-0455 | 1 | Bracket, Belt Guard |
| | | | | | 821-0004 | 2 | Screw, Cap - Locking Head (10-32 x 5/16") |

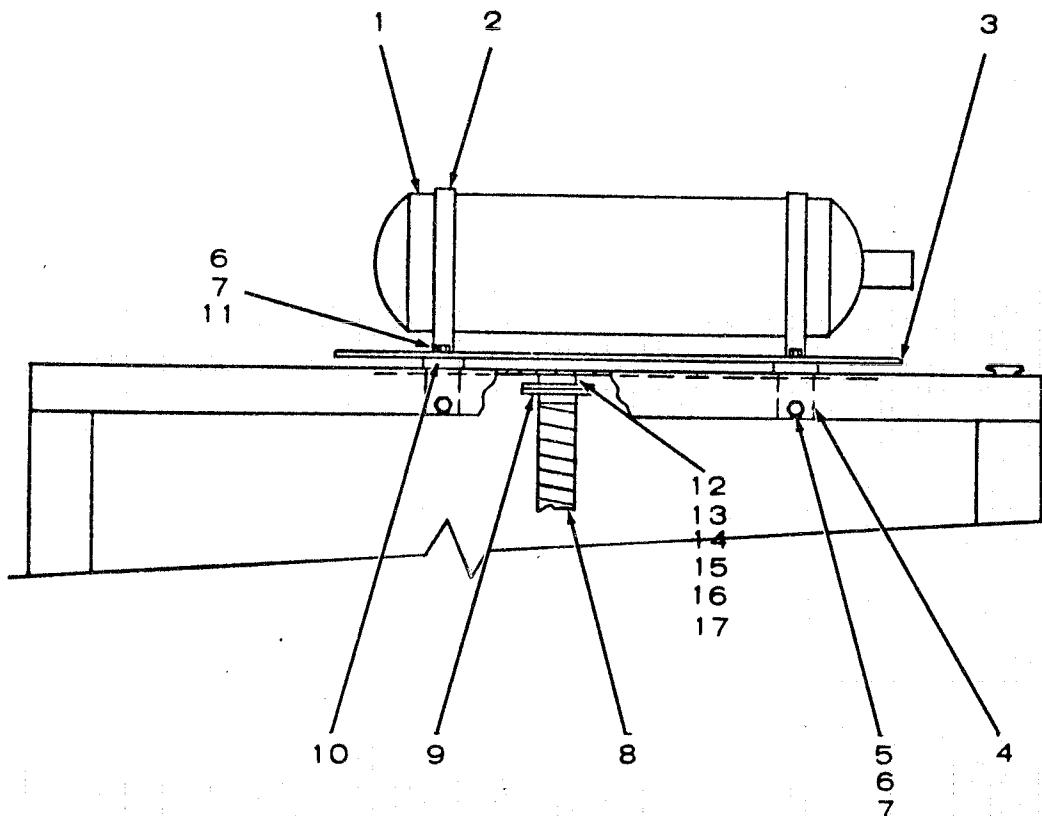
OPTIONAL NATURAL GAS AND LPG LIQUID (MANUAL CHANGEOVER) INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|-------------|-------------|--------------|---|
| 1 | 148-0728 | 1 | Carburetor and Valve Assembly | 17 | | 1 | Hose, Order 42" of Bulk Hose #503-0386 |
| 2 | 503-0324 | 2 | Nipple, Half (3/4" x 2") | 18 | 505-0019 | 1 | Bushing, Reducer (1/2 x 3/8") |
| 3 | 505-0102 | 1 | Nipple, Close (3/4") | 19 | 505-0356 | 1 | Elbow, Reducer (1 x 3/4") |
| 4 | 503-0189 | 4 | Clamp, Hose | 20 | 504-0005 | 1 | Cock, Drain (1/8") |
| 5 | 505-0135 | 3 | Nipple (3/8 x 1/2"), Half | 21 | 505-0084 | 1 | Nipple (3/4 x 2-1/2"), Pipe |
| 6 | 505-0039 | 2 | Elbow (3/8"), Pipe | 22 | 503-0249 | 1 | Hose (3/4" x 8-3/4") |
| 7 | 505-0101 | 3 | Nipple, Close (3/8") | 23 | 148-0274 | 1 | Bracket, Hose |
| 8 | 504-0028 | 1 | Cock, Drain (3/8") | 24 | 131-0192 | 1 | Line, Water |
| 9 | 505-0060 | 1 | Tee, Pipe (3/8") | 25 | 505-0021 | 1 | Bushing, Reducer (3/4 x 1/2") |
| 10 | 505-0132 | 2 | Elbow (3/4"), Pipe | 26 | 502-0227 | 1 | Connector, Inverted Male |
| 11 | 307-0268 | 1 | Valve, Solenoid | 27 | 505-0071 | 1 | Nipple (3/4 x 2"), Pipe |
| 12 | 800-0009 | 2 | Screw, Cap - Hex Head (1/4-20 x 1-1/2") | 28 | 505-0107 | 1 | Nipple, Short (1 x 2") |
| 13 | 850-0040 | 2 | Washer, Lock - Spring (1/4") | | | | |
| 14 | 862-0001 | 2 | Nut, Hex (1/4-20) | | | | |
| 15 | 148-0625 | 1 | *Converter Assembly, Gas (Impco Model EB) | | | | |
| 16 | 148-0631 | 1 | Bracket, Vaporizer | | | | |

* - For components contact your nearest Impco dealer or Impco Division, 16916 Gridley Place, Cerritos, California 90701.

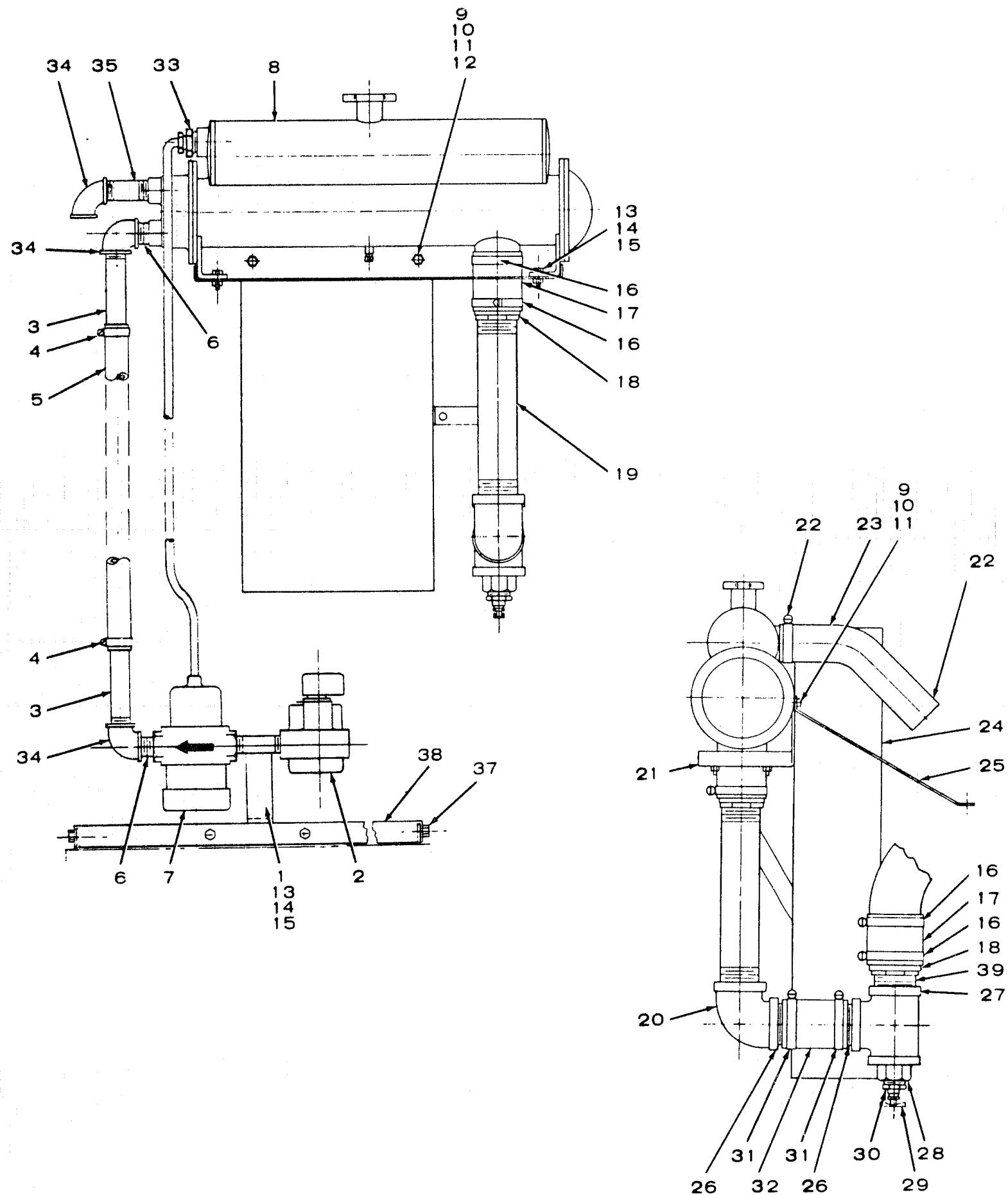
MUFFLER INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 155-0989 | 1 | Muffler, Exhaust |
| 2 | 140-0757 | 2 | Clamp |
| 3 | 155-0997 | 1 | Shield, Muffler Heat |
| 4 | 155-0789 | 2 | Support, Muffler |
| 5 | 800-0026 | 6 | Screw, Cap - Hex Head (5/16-18 x 3/4") |
| 6 | 850-0045 | 10 | Washer, Lock - Spring (5/16") |
| 7 | 862-0002 | 10 | Nut, Hex (5/16-18) |
| 8 | 155-1592 | 1 | Tube, Exhaust |
| 9 | 505-0702 | 1 | Union, Pipe |
| 10 | 155-1430 | 4 | Spacer |
| 11 | 800-0028 | 4 | Screw, Cap - Hex Head (5/16-18 x 1") |
| 12 | 895-0159 | 1 | Asbestos |
| 13 | 870-0048 | 1 | Nut, Hex (5/16-18) |
| 14 | 800-0037 | 1 | Screw, Cap - Hex Head (5/16-18 x 3") |
| 15 | 815-0105 | 1 | Screw, Machine - Socket Head (#10-32 x 1-1/4") |
| 16 | 870-0188 | 1 | Nut, Hex (10-32) |
| 17 | 155-1422 | 1 | Shield, Rain |

HEAT EXCHANGER WITH MARSH REGULATOR INSTALLATION

NOTE: REMOVE THERMOSTATS FROM ENGINE



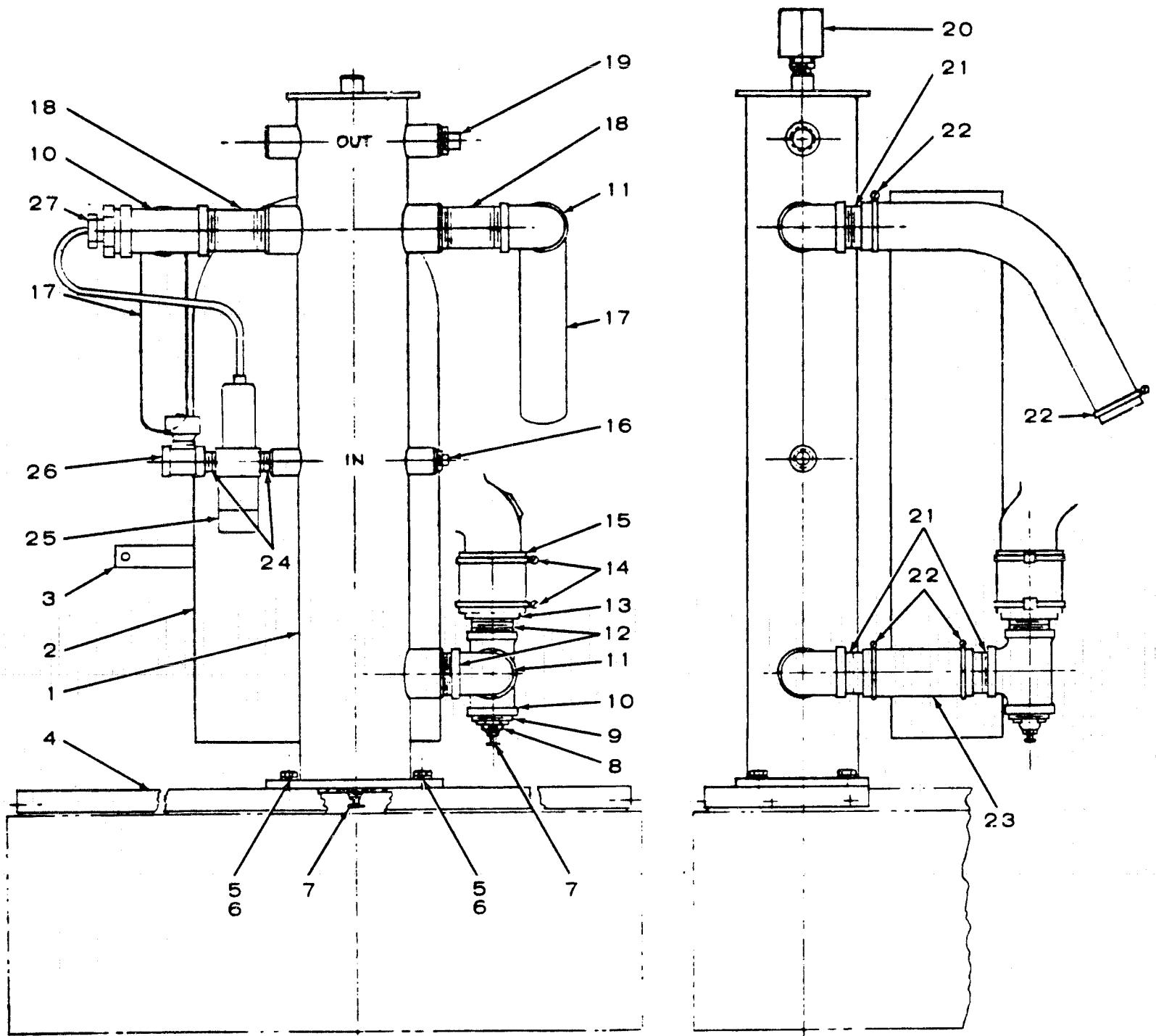
HEAT EXCHANGER WITH MARSH REGULATOR INSTALLATION

NOTE: REMOVE THERMOSTATS FROM ENGINE

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|---|
| 1 | 130-0797 | 1 | Bracket and Nipple | 21 | 130-0752 | 1 | Bracket, Heat Exchanger |
| 2 | 307-1139 | 1 | Valve, Solenoid | 22 | 503-0311 | 2 | Clamp, Hose |
| 3 | 505-0089 | 2 | Nipple, Half | 23 | 503-0332 | 2 | Hose, Radiator (Cut to Size) |
| 4 | 503-0004 | 2 | Clamp, Hose | 24 | 130-0454 | 1 | Guard, Belt |
| 5 | 503-0361 | 1 | Hose | 25 | 130-0751 | 1 | Brace |
| 6 | 505-0004 | 2 | Nipple, Close | 26 | 505-0385 | 2 | Nipple, Half |
| 7 | 309-0242 | 1 | Valve, Water Temperature Control | 27 | 505-0317 | 1 | Tee |
| 8 | 130-0753 | 1 | Heat Exchanger | 28 | 505-0399 | 1 | Bushing, Reducer |
| 9 | 800-0050 | 5 | Screw, Cap - Hex Head (3/8-16 x 1") | 29 | 504-0028 | 1 | Drain, Cock |
| 10 | 850-0050 | 5 | Washer, Lock - Spring (3/8") | 30 | 505-0019 | 1 | Bushing, Reducer |
| 11 | 862-0003 | 5 | Nut, Hex (3/8-16) | 31 | 503-0365 | 2 | Clamp, Hose |
| 12 | 526-0029 | 4 | Washer, Flat (25/64" ID x 7/8" OD x 1/16" Thk) | 32 | | 1 | Hose (Order 4" of Bulk Hose 503-0411) |
| 13 | 800-0007 | 6 | Screw, Cap - Hex Head (1/4-20 x 1") | 33 | 505-0129 | 1 | Bushing, Reducer |
| 14 | 850-0004 | 6 | Washer, Lock - Spring (1/4") | 34 | 505-0041 | 3 | Elbow |
| 15 | 862-0001 | 6 | Nut, Hex (1/4-20) | 35 | 505-0086 | 1 | Nipple |
| 16 | 503-0354 | 4 | Clamp, Hose | 36 | 505-0219 | 1 | Nipple |
| 17 | | 2 | Hose (Order 4" of Bulk Hose 503-0357) | 37 | 821-0014 | 6 | Screw, Cap - Locking Head (5/16-18 x 1/2") |
| 18 | 130-0478 | 2 | Fitting, Water Inlet | 38 | 130-0499 | 1 | Bracket, Heat Exchanger |
| 19 | 505-0095 | 1 | Nipple | 39 | 505-0220 | 1 | Nipple, Close |
| 20 | 505-0043 | 1 | Elbow | | 130-0455 | 1 | Bracket, Belt Guard |
| | | | | | 821-0004 | 2 | Screw, Cap - Locking Head (#10-32 x 5/16") |

STANDPIPE WITH MARSH REGULATOR INSTALLATION

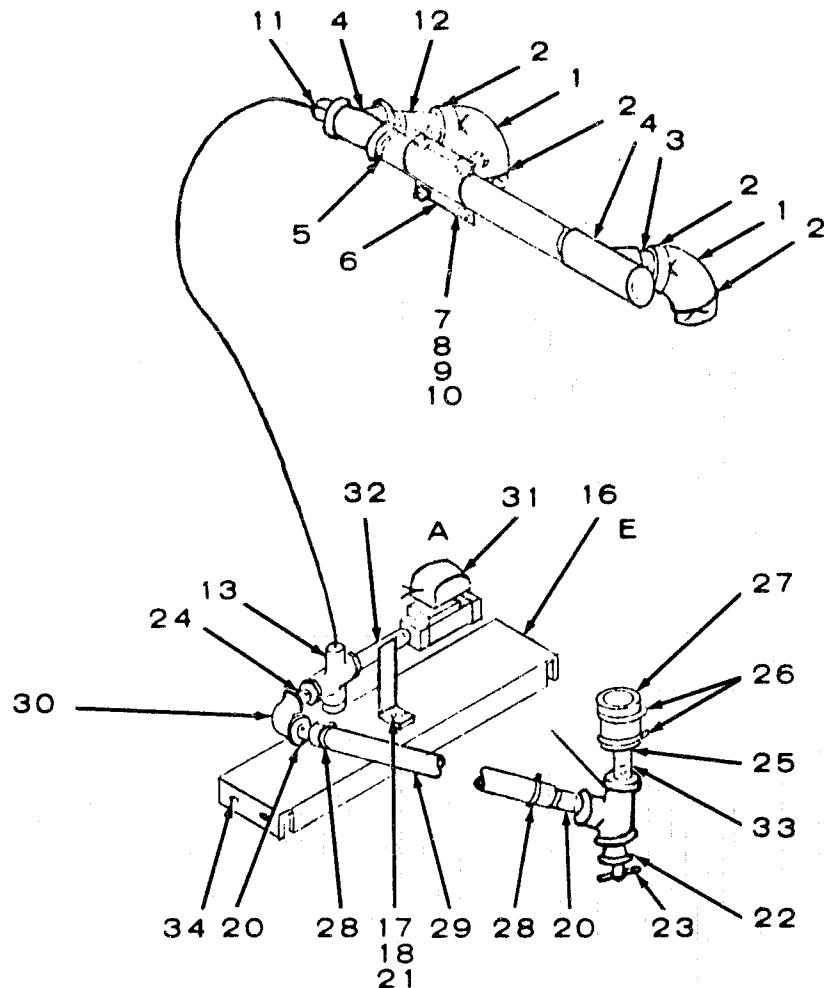
NOTE: REMOVE THERMOSTATS



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|-------------|-------------|--------------|--|
| 1 | 130-0635 | 1 | Standpipe | 15 | | 1 | Hose (3" of Bulk Hose 503-0357) |
| 2 | 130-0454 | 1 | Guard, Belt | 16 | 505-0130 | 1 | Plug, Square |
| 3 | 130-0455 | 1 | Bracket, Belt Guard Mounting | 17 | 503-0332 | 2 | Hose, Radiator |
| 4 | 130-0636 | 1 | Bracket, Standpipe Mounting | 18 | 505-0261 | 2 | Nipple |
| 5 | 850-0050 | 4 | Washer, Lock - Spring (3/8") | 19 | 505-0140 | 1 | Plug, Square |
| 6 | 800-0050 | 4 | Screw, Cap - Hex Head (3/8-16 x 1") | 20 | 505-0140 | 1 | Valve, Vacuum Relief |
| 7 | 504-0028 | 2 | Cock, Drain | 21 | 505-0140 | 4 | Nipple, Half |
| 8 | 505-0019 | 1 | Bushing, Reducer | 22 | 503-0365 | 6 | Clamp, Hose |
| 9 | 505-0399 | 1 | Bushing, Reducer | 23 | | 1 | Hose (7" of Bulk Hose 503-0411) |
| 10 | 505-0317 | 2 | Tee, Pipe | 24 | 505-0102 | 2 | Nipple, Close |
| 11 | 505-0043 | 2 | Elbow | 25 | 309-0241 | 1 | Valve, Water Temperature Control |
| 12 | 505-0220 | 2 | Nipple, Close | 26 | 307-0835 | 1 | Valve, Solenoid |
| 13 | 130-0478 | 1 | Filter, Water Inlet | 27 | 505-0289 | 1 | Bushing, Reducer |
| 14 | 503-0354 | 2 | Clamp, Hose | | 821-0004 | 2 | Screw, Cap - Locking Head (10-32 x 5/16") |

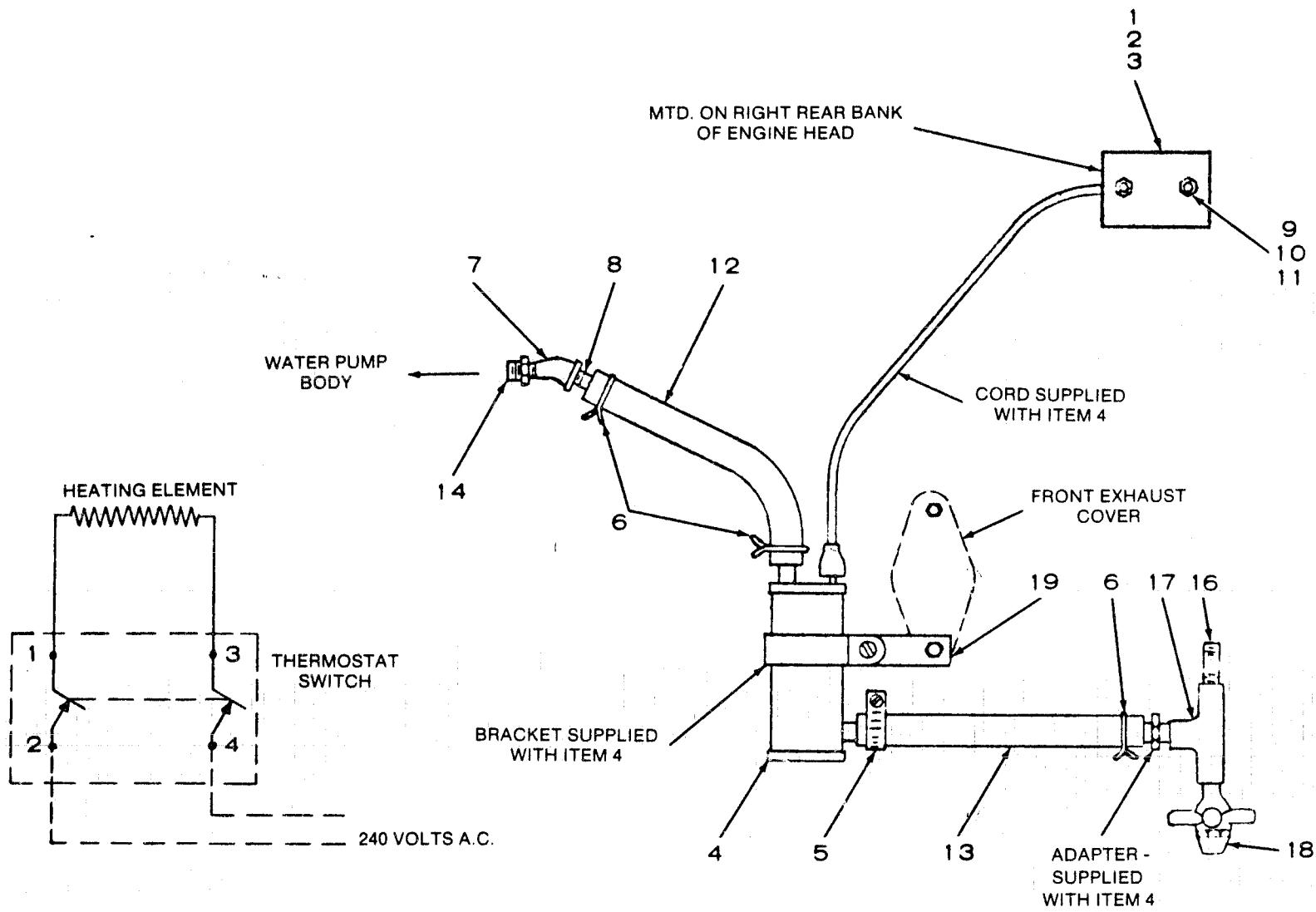
CITY WATER COOLED WITH MARSH REGULATOR (UNHOUSED MODELS) INSTALLATION

NOTE: REMOVE THERMOSTATS FROM ENGINE



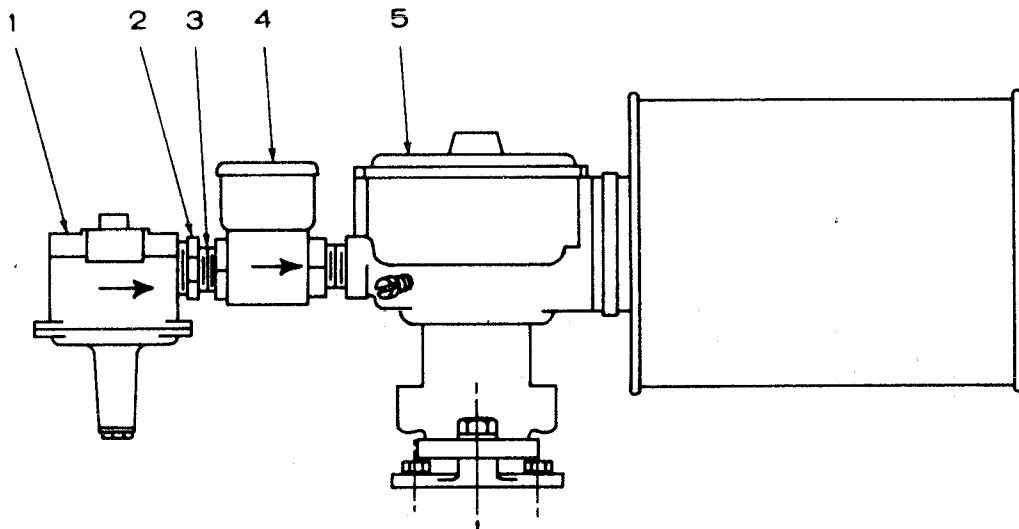
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|-------------------------|--|
| 1 | 503-0364 | 2 | Hose, Radiator | 19 | 800-0023 | 2 | Screw, Cap - Hex Head (1/4-20 x 1-3/8") |
| 2 | 503-0365 | 4 | Clamp, Hose | 20 | 505-0131 | 1 | Bushing, Reducer |
| 3 | 505-0272 | 1 | Nipple, Half | 21 | 505-0028 | 1 | Cock, Drain |
| 4 | 505-0317 | 2 | Tee, Pipe | 22 | 505-0102 | 1 | Nipple, Close |
| 5 | 505-0424 | 1 | Nipple | 23 | 130-0452 | 1 | Fitting, Water Inlet |
| 6 | 130-0488 | 1 | Support, Pipe | 24 | 503-0354 | 2 | Clamp, Hose |
| 7 | 800-0028 | 4 | Screw, Cap - Hex Head (5/16-18 x 1") | 25 | 503-0189 | 1 | Hose (3" of Bulk Hose 503-0357) |
| 8 | 862-0002 | 4 | Nut, Hex (5/16-18) | 26 | 503-0189 | 2 | Clamp, Hose |
| 9 | 850-0045 | 4 | Washer, Lock - Spring (5/16") | 27 | 505-0132 | 1 | Hose (9-1/2" of Bulk Hose 503-0249) |
| 10 | 526-0115 | 4 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) | 28 | 307-0835 | 1 | Elbow |
| 11 | 505-0289 | 1 | Bushing, Reducer | 29 | 110-0810 | 1 | Valve, Solenoid |
| 12 | 505-0274 | 1 | Nipple, Half | 30 | 505-0085 | 1 | Nipple and Bracket |
| 13 | 309-0241 | 1 | Valve, Temperature Control | 31 | 821-0014 | 6 | Nipple |
| 14 | 130-0499 | 1 | Bracket, Support | 32 | 130-0454 | 1 | Screw, Cap - Hex Head (5/16-18 x 1/2") |
| 15 | 850-0040 | 2 | Washer, Lock - Spring (1/4") | 130-0455 | 1 | Guard, Belt | |
| 16 | 862-0001 | 2 | Nut, Hex (1/4-20) | 821-0004 | 2 | Bracket, Guard Mounting | |
| 17 | 505-0166 | 1 | Tee, Pipe | | | | Screw, Cap - Hex Head (#10-32 x 5/16") |
| 18 | 505-0324 | 2 | Nipple, Half | | | | |

WATER JACKET HEATER (240 VOLTS) INSTALLATION



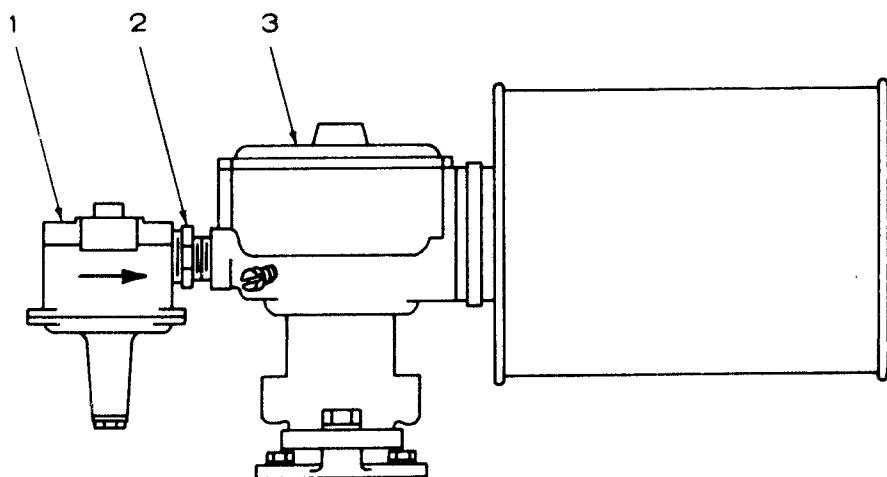
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|--|
| 1 | 309-0256 | 1 | Thermostat |
| 2 | 333-0057 | 1 | Box, Thermostat |
| 3 | 333-0056 | 1 | Cover, Thermostat Box |
| 4 | 333-0073 | 1 | Heater |
| 5 | 503-0183 | 1 | Clamp, Hose |
| 6 | 503-0131 | 3 | Clamp, Hose |
| 7 | 505-0119 | 1 | Elbow, Stud (3/8" x 45°) |
| 8 | 505-0135 | 1 | Nipple, Half (3/8 x 1-1/2") |
| 9 | 332-0672 | 2 | Stud |
| 10 | 870-0053 | 2 | Nut, Hex (#10-32) |
| 11 | 850-0030 | 2 | Washer, Lock - Spring (#10) |
| 12 | | 1 | Hose, Order 8" of Bulk Hose #503-0386 |
| 13 | | 1 | Hose, Order 11" of Bulk Hose #503-0386 |
| 14 | 505-0019 | 1 | Bushing, Reducer (1/2 x 3/8") |
| 16 | 505-0101 | 1 | Nipple, Close (1/4") |
| 17 | 505-0184 | 1 | Tee (1/4") |
| 18 | 504-0003 | 1 | Valve, Drain |
| 19 | 130-0755 | 1 | Bracket |

OPTIONAL LPG VAPOR CARBURETOR INSTALLATION



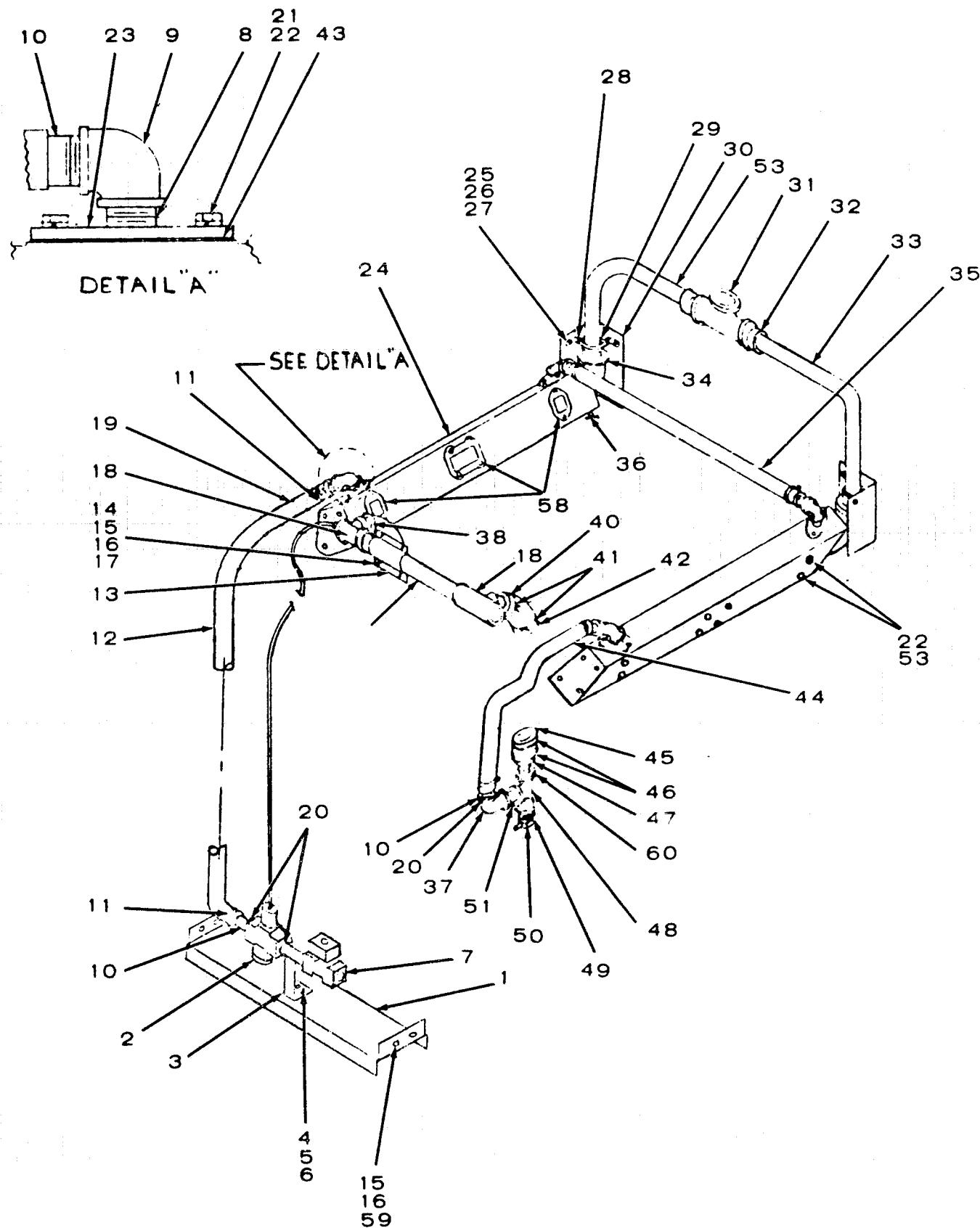
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | 148-0636 | 1 | Regulator - LPG Vapor |
| 2 | 505-0129 | 1 | Bushing, Reducer |
| 3 | 505-0102 | 1 | Nipple, Close |
| 4 | 307-0312 | 1 | Valve, Magnetic |
| 5 | | 1 | Carburetor & Air Cleaner (See Separate Installation #179-0522) |

OPTIONAL GAS CARBURETOR INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 148-0601 | 1 | Regulator, Gas |
| 2 | 505-0129 | 1 | Bushing, Reducer |
| 3 | | 1 | Carburetor and Air Cleaner Assembly (See Separate Installation 179-0522 for Complete Breakdown of Components) |

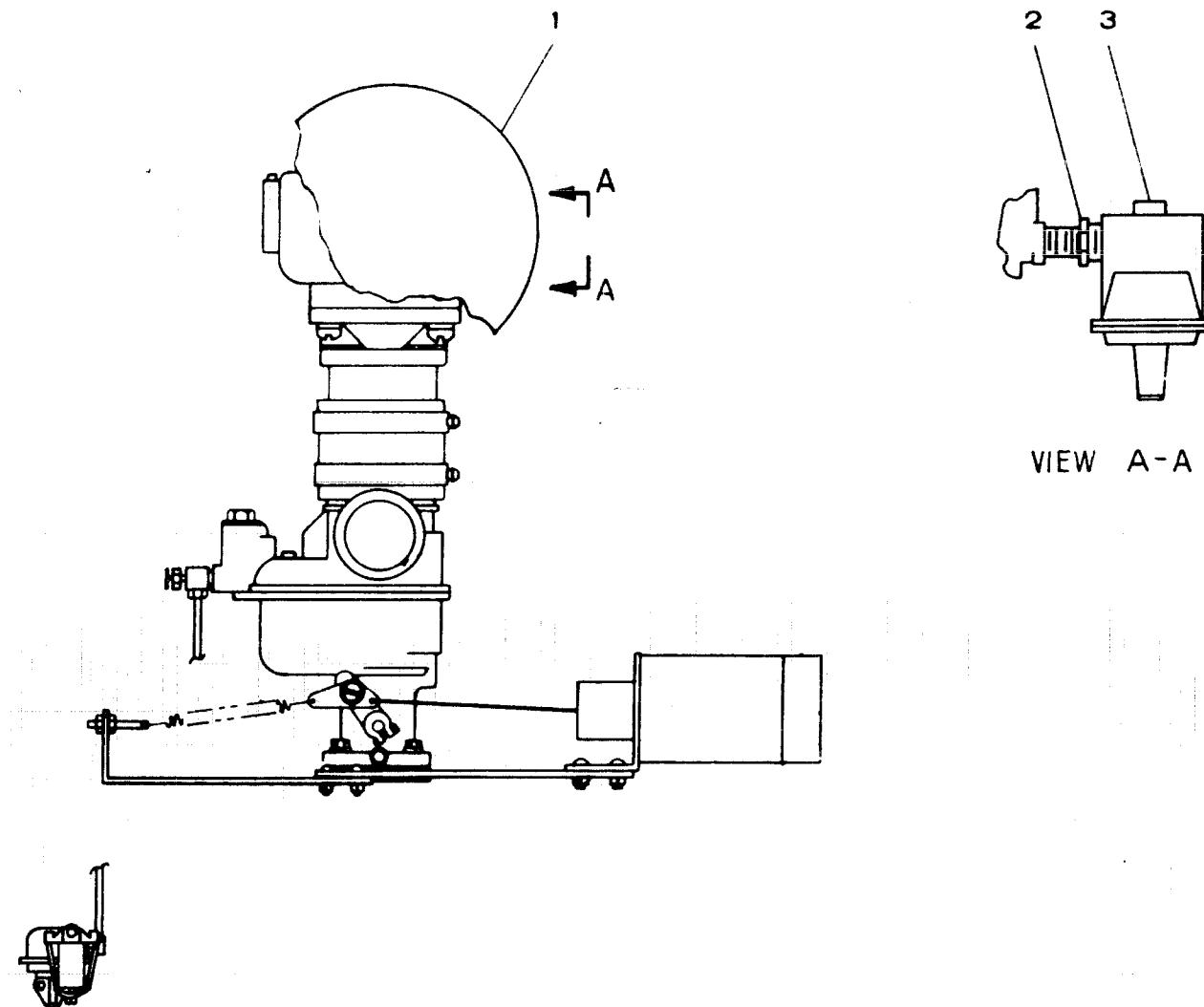
**CITY WATER COOLED WITH WATER COOLED EXHAUST MANIFOLD
AND MARSH REGULATOR (HOUSED MODELS) INSTALLATION**



**CITY WATER COOLED WITH WATER COOLED EXHAUST MANIFOLD
AND MARSH REGULATOR (HOUSED MODELS) INSTALLATION**

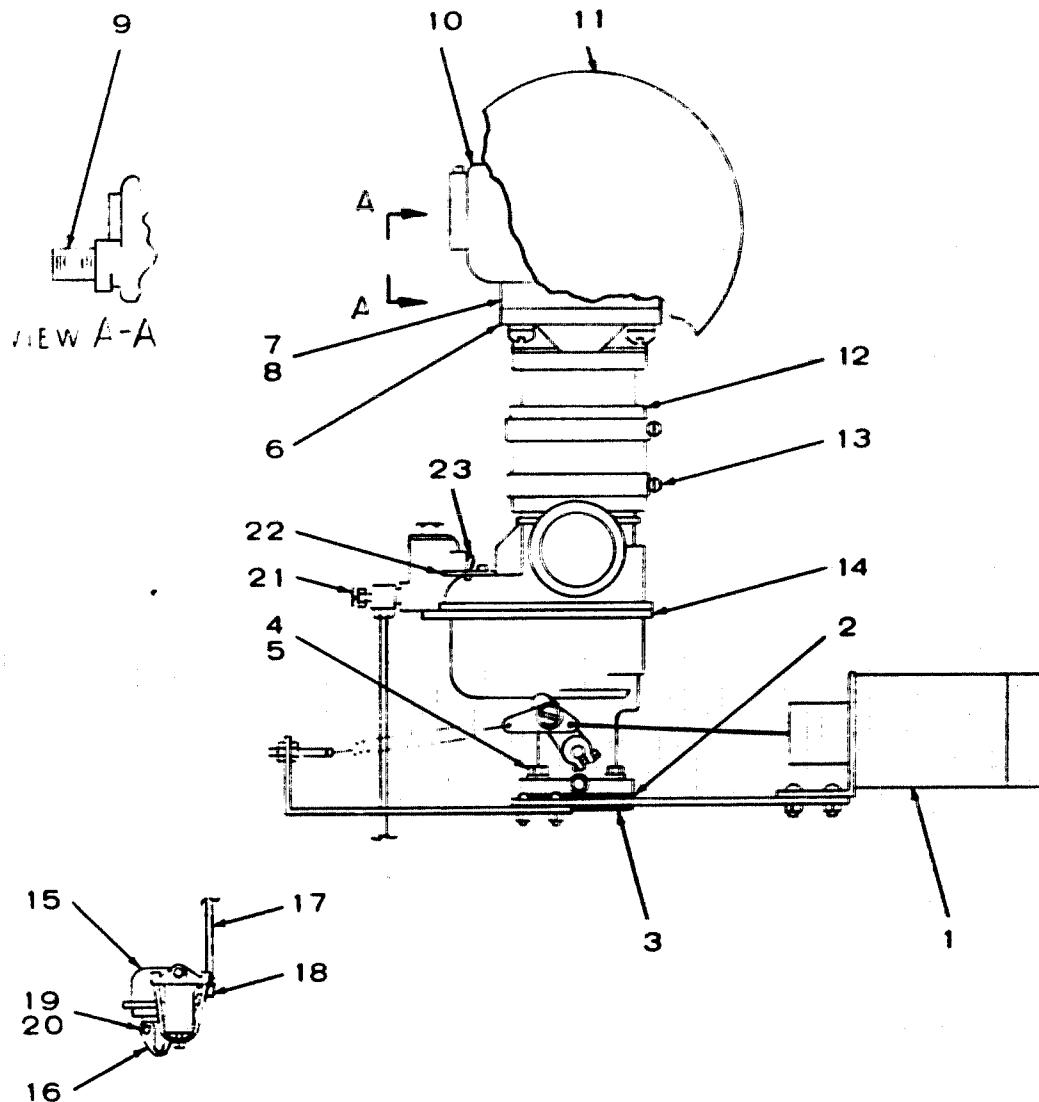
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|--|
| 1 | 130-0828 | 1 | Bracket, Support | 29 | 155-0661 | 2 | Band, Shield Mounting |
| 2 | 309-0241 | 1 | Valve, Water Temperature Control | 30 | 155-0659 | 2 | Shield, Exhaust Header |
| 3 | 110-0526 | 1 | Nipple & Bracket Assembly | 31 | 505-0373 | 1 | Tee, Reducer (2-1/2 x 2-1/2 x 3") |
| 4 | 800-0007 | 2 | Screw, Cap - Hex Head (1/4-20 x 1") | 32 | 155-0615 | 1 | Nipple, Half |
| 5 | 862-0001 | 2 | Nut, Hex (1/4-20) | 33 | 155-1047 | 1 | Tube Assembly, Exhaust |
| 6 | 850-0040 | 2 | Washer, Lock - Spring (1/4") | 34 | 505-0216 | 2 | Elbow, Street (2-1/2") |
| 7 | 307-0833 | 1 | Valve, Solenoid | 35 | | 1 | Hose, Order 38" of Bulk Hose #503-0386 |
| 8 | 505-0100 | 5 | Nipple, Close (1/2") | 36 | 504-0005 | 2 | Cock, Drain |
| 9 | 505-0040 | 4 | Elbow (1/2" x 90°) | 37 | 505-0132 | 1 | Elbow (3/4" x 90°) |
| 10 | 505-0185 | 6 | Nipple, Half (1/2 x 1-1/2") | 38 | 505-0474 | 1 | Nipple, Half (1-1/2 x 5") |
| 11 | 503-0189 | 6 | Clamp, Hose | 40 | 505-0272 | 1 | Nipple, Half (1-1/2 x 4") |
| 12 | | 1 | Hose, Order 23" of Bulk Hose #503-0386 | 41 | 503-0365 | 4 | Clamp, Hose |
| 13 | 130-0488 | 1 | Support, Pipe | 42 | 503-0364 | 2 | Hose |
| 14 | 800-0028 | 4 | Screw, Cap - Hex Head (5/16-18 x 1") | 43 | 145-0178 | 4 | Gasket, Flange |
| 15 | 862-0002 | 8 | Nut, Hex (5/16-18) | 44 | | 1 | Hose, Order 20" of Bulk Hose #503-0386 |
| 16 | 850-0045 | 10 | Washer, Lock - Spring (5/16") | 45 | | 1 | Hose, Order 3" of Bulk Hose #503-0357 |
| 17 | 526-0115 | 4 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) | 46 | 503-0354 | 2 | Clamp, Hose |
| 18 | 505-0317 | 2 | Tee (1-1/2") | 47 | 130-0452 | 1 | Fitting, Water Inlet |
| 19 | 505-0289 | 1 | Bushing, Reducer (1-1/2 x 3/4") | 48 | 505-0166 | 1 | Tee (3/4") |
| 20 | 505-0021 | 2 | Bushing (3/4 x 1/2") | 49 | 505-0131 | 1 | Bushing (3/4 x 3/8") |
| 21 | 800-0050 | 8 | Screw, Cap - Hex Head (3/8-16 x 1") | 50 | 504-0028 | 1 | Cock, Drain |
| 22 | 850-0050 | 24 | Washer, Lock - Spring (3/8") | 51 | 505-0084 | 1 | Nipple (3/4 x 2-1/2") |
| 23 | 154-0611 | 4 | Flange, Water Inlet | 52 | 505-0424 | 1 | Nipple (1-1/2 x 16-1/2") |
| 24 | 154-1245 | 2 | Manifold, Water Cooled | 53 | 155-1048 | 1 | Tube Assembly, Exhaust |
| 25 | 870-0053 | 8 | Nut, Hex (#10-32) | 54 | 505-0057 | 2 | Plug (1/8") |
| 26 | 813-0102 | 10 | Screw, Machine - Roundhead (10-32 x 5/8") | 55 | 130-0454 | 1 | Guard, Belt |
| 27 | 850-0030 | 10 | Washer, Lock - Spring (#10) | 56 | 130-0455 | 1 | Bracket, Guard Mounting |
| 28 | 155-0660 | 2 | Bracket, Exhaust Shield Mounting | 57 | 104-0091 | 16 | Nut (3/8-24") |
| | | | | 58 | 154-0592 | 2 | Gasket Set, Manifold |
| | | | | 59 | 800-0026 | 6 | Screw, Cap - Hex Head (5/16-18 x 3/4") - Coil Mounting |
| | | | | 60 | 505-0102 | 1 | Nipple, Close (3/4") |

**OPTIONAL
LPG AND GASOLINE CARBURETOR INSTALLATION**



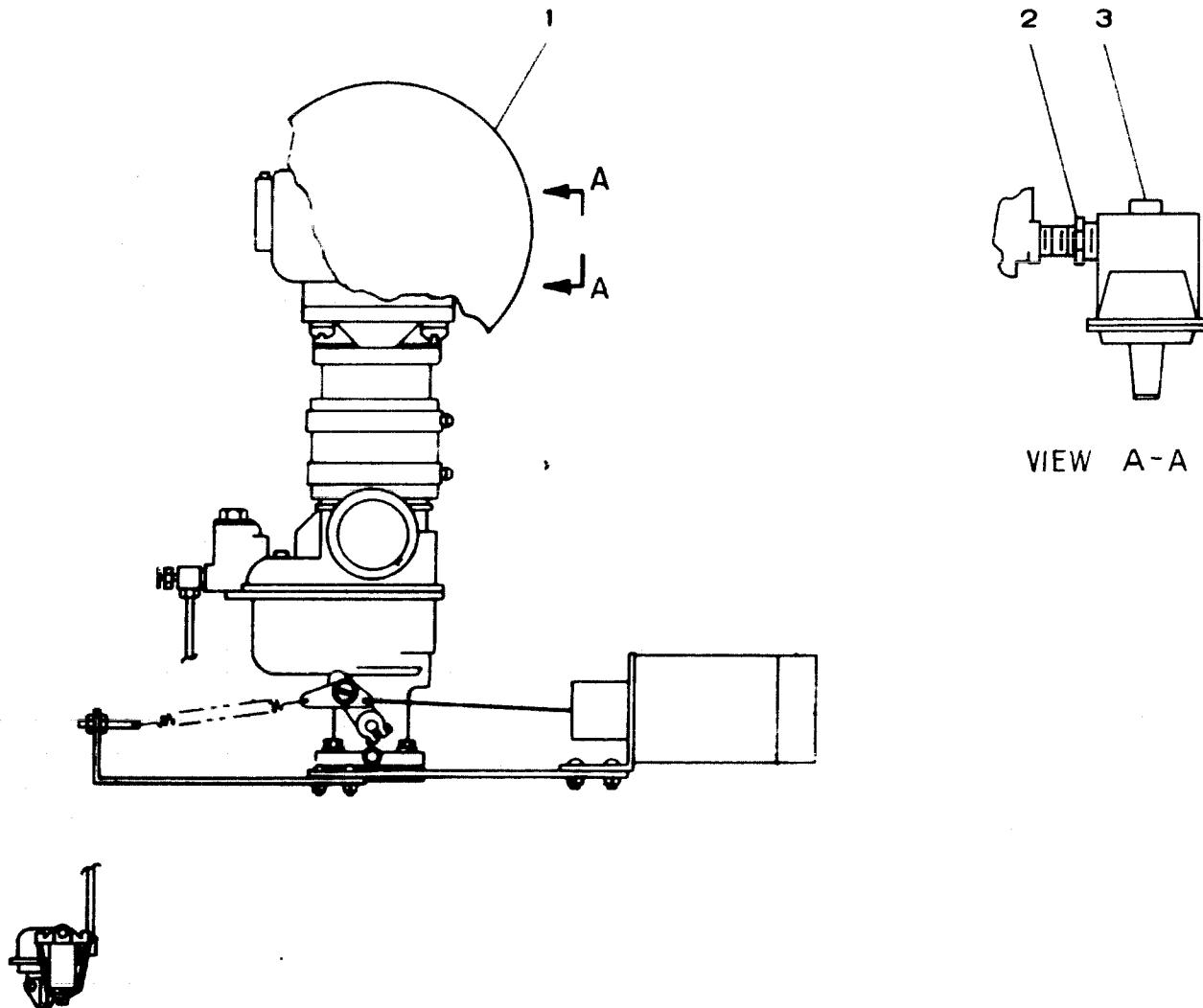
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | | 1 | Carburetor and Mixer Assembly (See Separate Installation 179-0520 for Complete Breakdown of Components) |
| 2 | 505-0129 | 1 | Bushing, Reducer |
| 3 | 148-0601 | 1 | Regulator, Natural Gas |

**OPTIONAL
CARBURETOR AND MIXER**



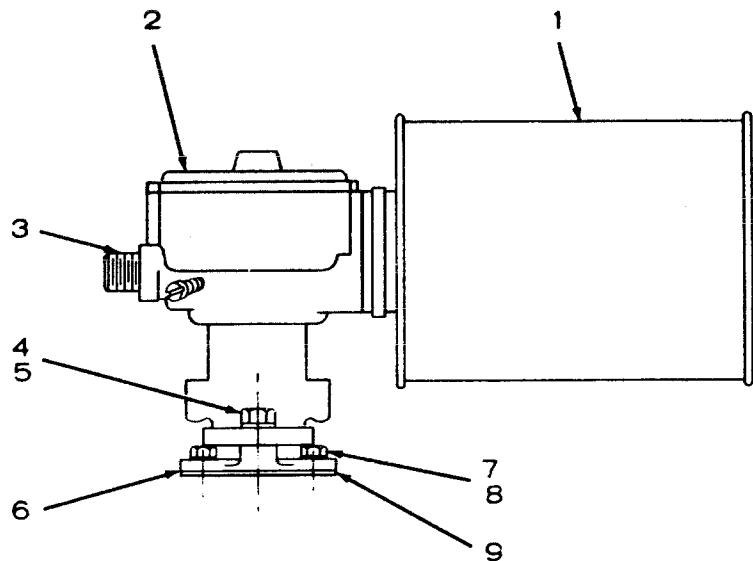
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|-------------|-------------|--------------|--|
| 1 | | 1 | Anti Dieseling Assembly (See Separate Illustration for 145-0458 for Complete Breakdown) | 13 | 503-0354 | 2 | Clamp |
| 2 | 145-0185 | 1 | Gasket, Carburetor Flange | 14 | 141-0825 | 1 | Carburetor (Includes Mounting Gasket) |
| 3 | 145-0189 | 2 | Gasket, Carburetor Flange | 15 | 149-0730 | 1 | Pump, Fuel (Includes Mounting Gasket) |
| 4 | 110-0445 | 4 | Nut, Hex (5/16-24) | 16 | 149-0736 | 1 | Gasket, Fuel Pump |
| 5 | 850-0045 | 4 | Washer, Lock - Spring (5/16") | 17 | 159-0685 | 1 | Line, Fuel |
| 6 | 145-0396 | 1 | Adapter, Carburetor | 18 | 502-0004 | 1 | Elbow, Fuel Pump |
| 7 | | 1 | Gasket (Supplied with Mixer) | 19 | 800-0051 | 2 | Screw, Cap - Hex Head (3/8-16 x 1-1/4") |
| 8 | | 4 | Screw (Supplied with Mixer) | 20 | 850-0050 | 2 | Washer, Lock - Spring (3/8") |
| 9 | 505-0102 | 1 | Nipple, Close | 21 | 504-0085 | 1 | Valve, Fuel Shut Off |
| 10 | 148-0598 | 1 | Mixer, Carburetor | 22 | 308-0150 | 1 | Plate, Switch Mounting |
| 11 | 140-0851 | 1 | Cleaner, Air | 23 | 308-0005 | 1 | Switch, Toggle (SPDT) |
| 12 | 503-0550 | 1 | Adapter, Hose | | | | |

**OPTIONAL
GAS-GASOLINE CARBURETOR INSTALLATIONS**



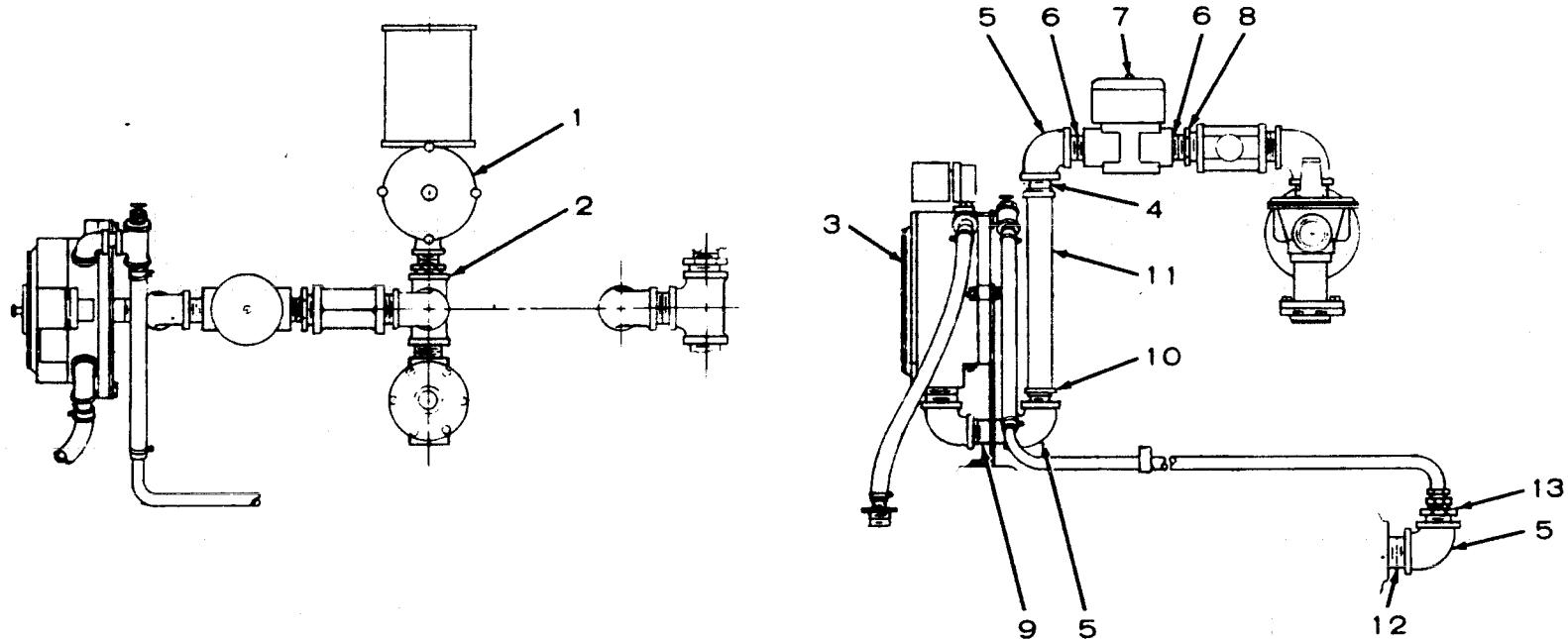
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|
| 1 | | 1 | Carburetor and Mixer Assembly (See Separate Installation 179-0520 for Complete Breakdown of Components) |
| 2 | 505-0129 | 1 | Bushing, Reducer |
| 3 | 148-0636 | 1 | Regulator, LPG |

**OPTIONAL
CARBURETOR AND AIR CLEANER
GAS**



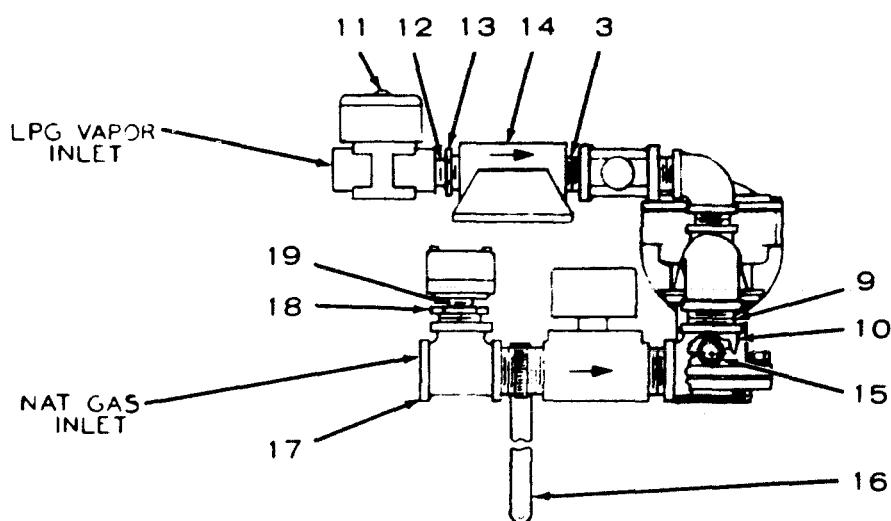
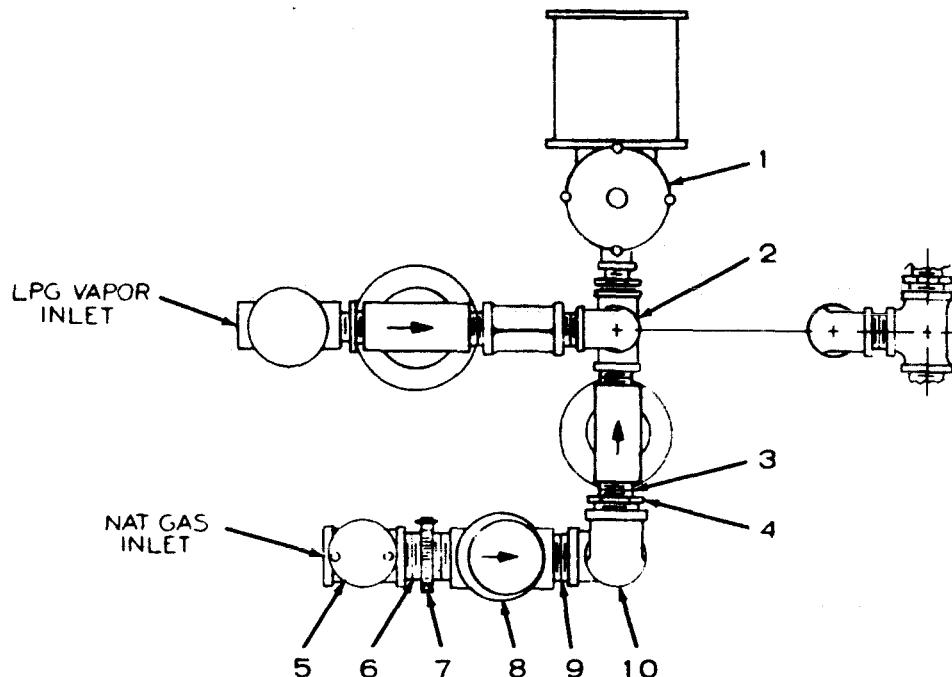
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | 140-0851 | 1 | Cleaner, Air |
| 2 | 140-0592 | 1 | Carburetor - Gas |
| 3 | 505-0102 | 1 | Nipple, Close |
| 4 | 800-0071 | 2 | Screw, Cap - Hex Head (7/16-14 x 1") |
| 5 | 850-0055 | 2 | Washer, Lock - Spring (7/16") |
| 6 | 145-0358 | 1 | Adapter, Carburetor |
| 7 | 110-0445 | 4 | Nut, Hex (5/16-24) |
| 8 | 850-0045 | 4 | Washer, Lock - Spring (5/16") |
| 9 | 145-0185 | 2 | Gasket, Carburetor |

OPTIONAL DUAL FUEL INSTALLATION



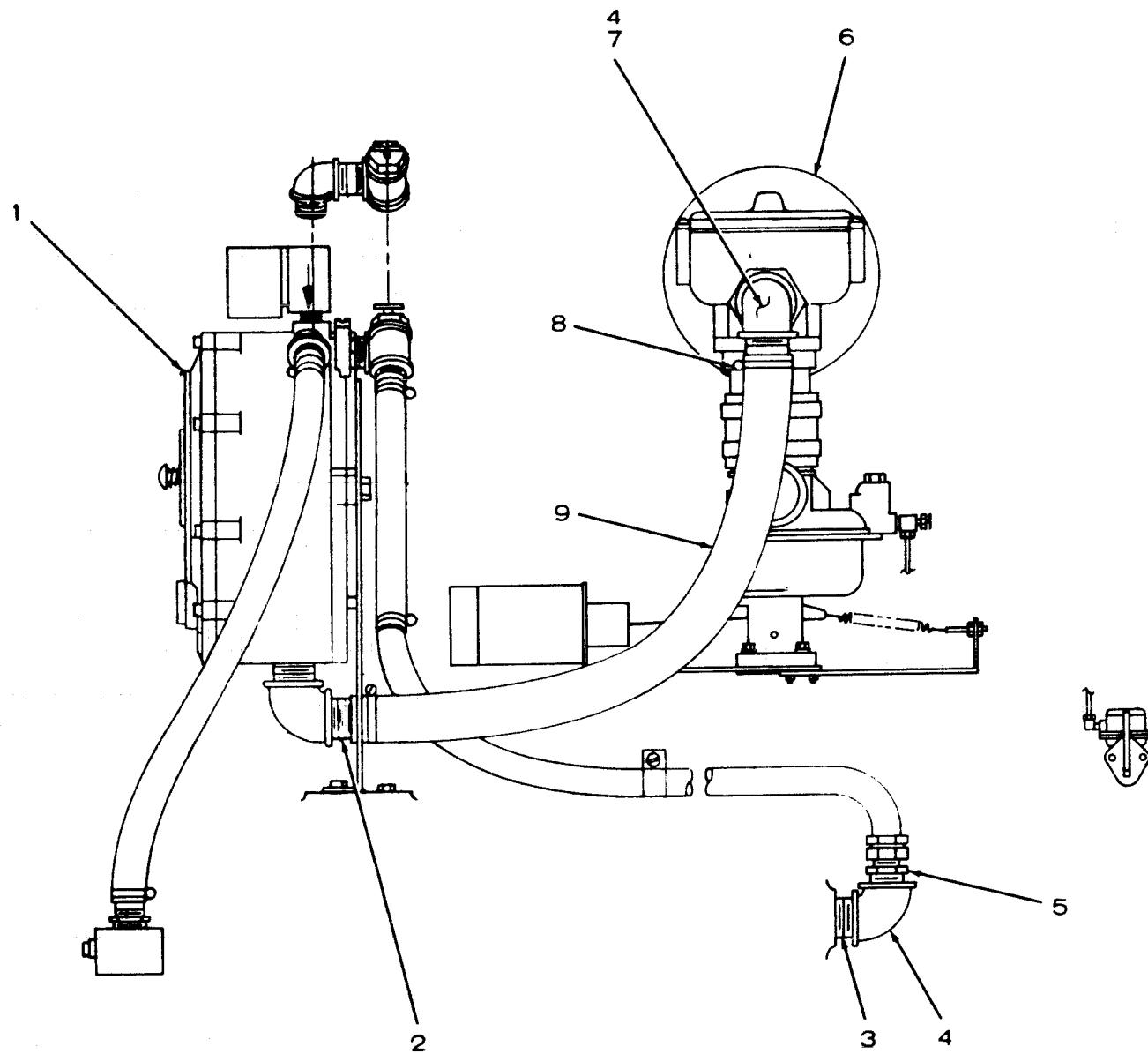
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | | 1 | Carburetor and Air Cleaner Assembly (See Separate Installation 179-0522 for Complete Breakdown of Components) |
| 2 | | 1 | Valve and Regulator Assembly (See Separate Installation 148-0832 for Complete Breakdown of Components) |
| 3 | | 1 | Vaporizer Assembly (See Separate Installation 148-0833 for Complete Breakdown of Components) |
| 4 | 505-0324 | 2 | Nipple, Half |
| 5 | 505-0132 | 3 | Elbow, Pipe |
| 6 | 505-0102 | 2 | Nipple, Close |
| 7 | 307-0312 | 1 | Valve, Solenoid |
| 8 | 505-0129 | 1 | Bushing, Reducer |
| 9 | 505-0084 | 1 | Nipple, Pipe |
| 10 | 503-0189 | 2 | Clamp, Hose |
| 11 | 503-0848 | 1 | Hose, Heater |
| 12 | 505-0071 | 1 | Nipple, Pipe |
| 13 | 505-0021 | 1 | Bushing, Reducer |

**OPTIONAL
DUAL FUEL INSTALLATIONS
— LPG AND GAS CONVERSION —**



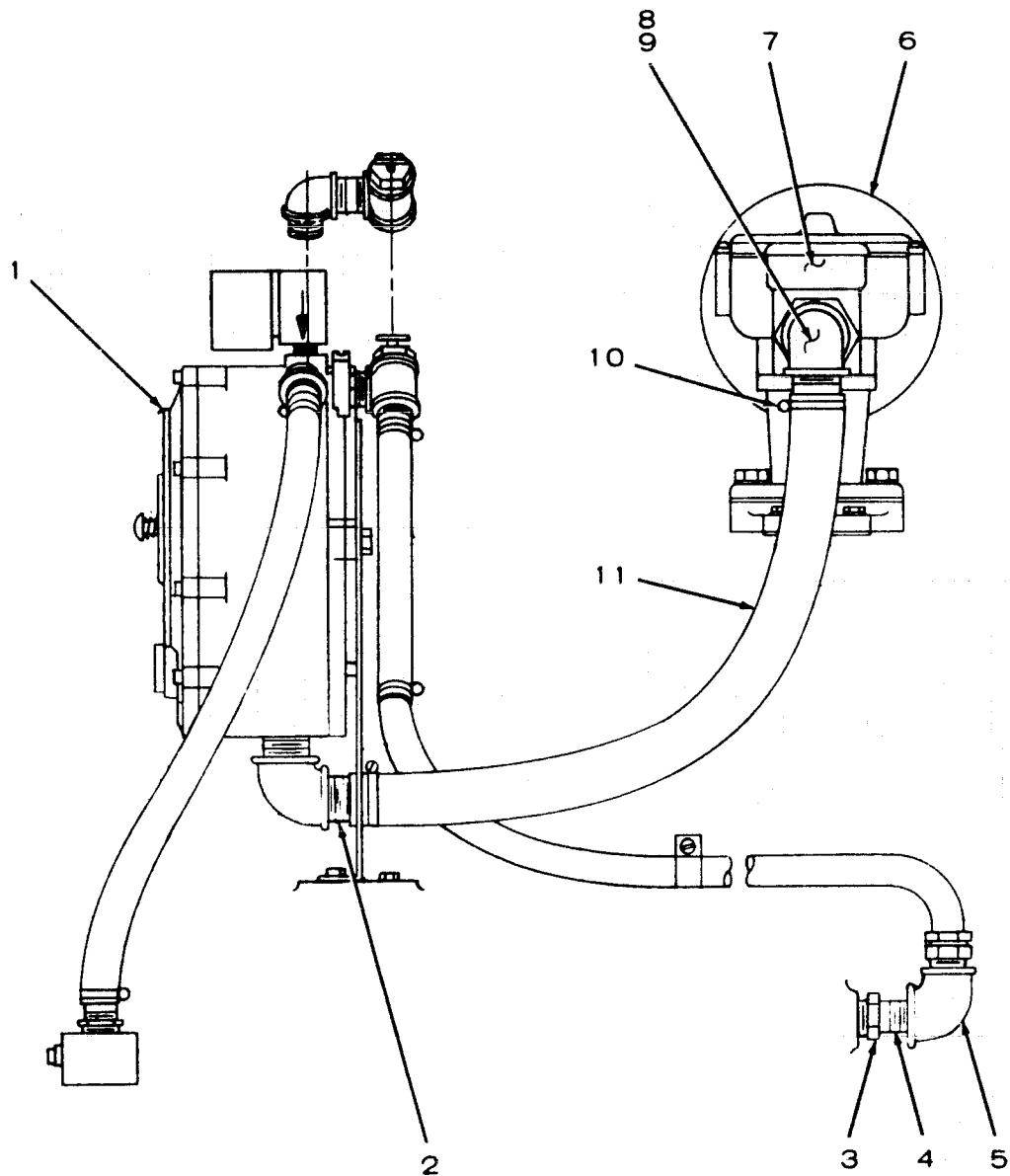
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|----------------------------|
| 1 | | 1 | Carburetor and Air Cleaner (See Separate Installation 179-0522 for Complete Breakdown of Components) | 8 | 307-0837 | 1 | Valve, Solenoid |
| 2 | | 1 | Valve and Regulator (See Separate Installation 148-0832 for Complete Breakdown of Components) | 9 | 505-0177 | 2 | Nipple, Close |
| 3 | 505-0004 | 2 | Nipple, Close | 10 | 505-0042 | 2 | Elbow, Pipe |
| 4 | 505-0023 | 1 | Bushing, Reducer | 11 | 307-0312 | 1 | Valve, Magnetic |
| 5 | 148-0627 | 1 | Switch, Pressure | 12 | 505-0102 | 1 | Nipple, Close |
| 6 | 505-0258 | 1 | Nipple, Pipe | 13 | 505-0129 | 1 | Bushing, Reducer |
| 7 | 331-0101 | 1 | Hanger | 14 | 148-0636 | 1 | Valve, Pressure Reduction |
| | | | | 15 | 148-0620 | 1 | Collar, Shaft |
| | | | | 16 | 191-0101 | 1 | Strap, Generator Adjusting |
| | | | | 17 | 505-0249 | 1 | Tee, Pipe |
| | | | | 18 | 505-0766 | 1 | Bushing, Reducer |
| | | | | 19 | 505-0099 | 1 | Nipple, Close |

**OPTIONAL
LPG AND GASOLINE CARBURETOR INSTALLATION**



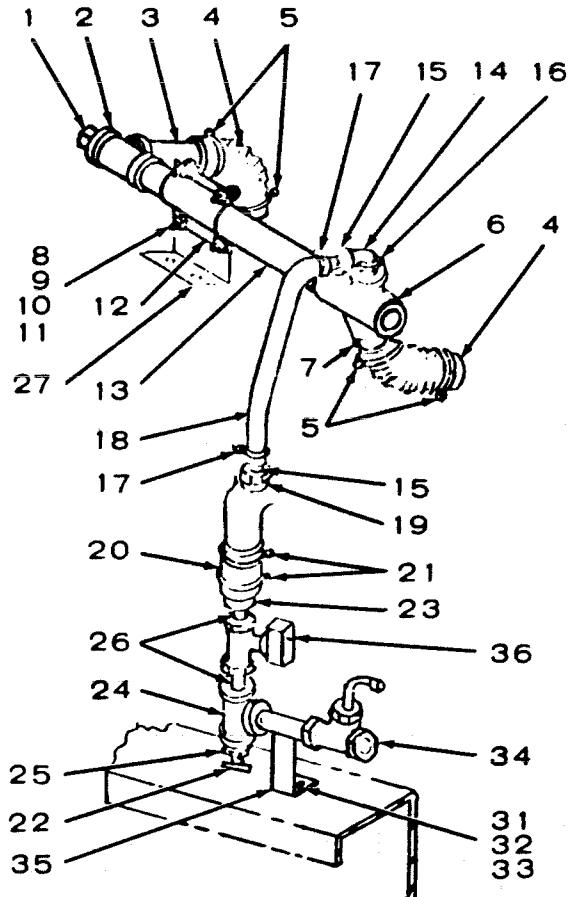
| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | | 1 | Vaporizer Assembly (See Separate Installation 148-0833 for Complete Breakdown of Components) |
| 2 | 505-0324 | 2 | Nipple, Half |
| 3 | 505-0071 | 1 | Nipple, Pipe |
| 4 | 505-0132 | 2 | Elbow, Pipe |
| 5 | 505-0021 | 1 | Bushing, Reducer |
| 6 | | 1 | Carburetor and Mixers (See Separate Installation 179-0520 for Complete Breakdown of Components) |
| 7 | 505-0102 | 1 | Nipple, Pipe |
| 8 | 503-0382 | 2 | Clamp, Hose |
| 9 | 503-0792 | 1 | Hose |

**OPTIONAL
LPG LIQUID CARBURETOR INSTALLATION**



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 1 | | 1 | Vaporizer (See Separate Illustration 148-0833 for Complete Breakdown of Components) |
| 2 | 505-0324 | 2 | Nipple, Half |
| 3 | 505-0021 | 1 | Bushing, Reducer |
| 4 | 505-0106 | 1 | Nipple, Pipe |
| 5 | 505-0040 | 1 | Elbow, Pipe |
| 6 | | 1 | Carburetor and Air Cleaner (See Separate Installation 179-0522 for Complete Breakdown of Components) |
| 7 | 307-0312 | 1 | Valve, Magnetic |
| 8 | 505-0102 | 1 | Nipple, Close |
| 9 | 505-0132 | 1 | Elbow |
| 10 | 503-0382 | 2 | Clamp, Hose |
| 11 | 503-0792 | 1 | Hose |

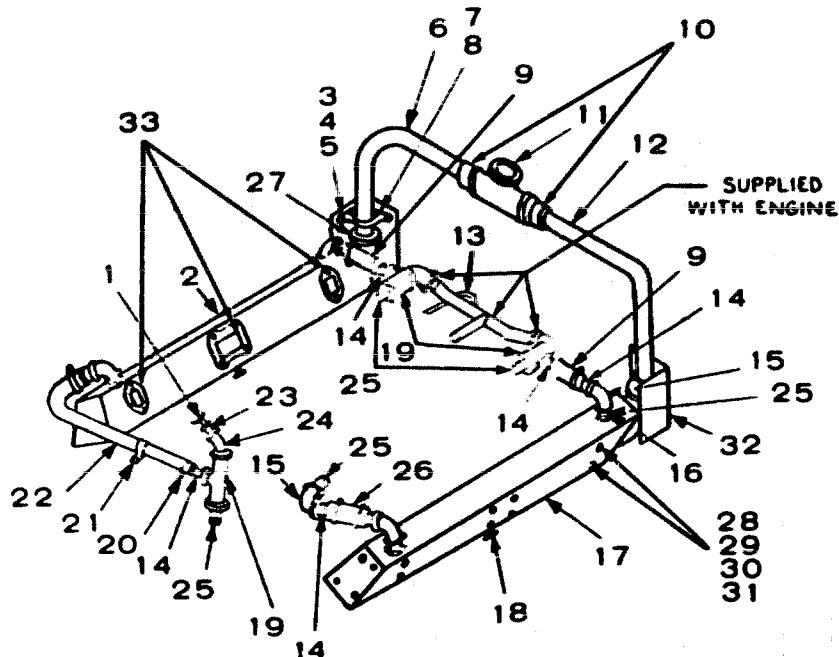
CITY WATER COOLED (HOUSED MODELS) INSTALLATION



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|--|
| 1 | 505-0402 | 1 | Plug, Square Head | 19 | 505-0018 | 1 | Bushing, Reducer (1/2 x 1/4") |
| 2 | 505-0317 | 1 | Tee, Pipe (1-1/2") | 20 | | 1 | Hose, Order 3" of Bulk Hose #503-0357 |
| 3 | 505-0474 | 1 | Nipple, Half (1-1/2 x 5") | 21 | 503-0354 | 2 | Clamp, Hose |
| 4 | 503-0364 | 2 | Hose, Radiator | 22 | 504-0028 | 1 | Cock, Drain |
| 5 | 503-0365 | 4 | Clamp, Hose | 23 | 130-0452 | 1 | Fitting, Water Inlet |
| 6 | 505-0398 | 1 | Tee, Side Outlet (1-1/2") | 24 | 505-0166 | 1 | Tee, Pipe (3/4") |
| 7 | 505-0385 | 1 | Nipple, Half (1-1/2 x 2") | 25 | 505-0131 | 1 | Bushing, Reducer (3/4 x 3/8") |
| 8 | 800-0028 | 4 | Screw, Cap - Hex Head (5/16-18 x 1") | 26 | 505-0102 | 2 | Nipple, Close (3/4") |
| 9 | 862-0002 | 4 | Nut, Hex (5/16-18") | 27 | 130-0528 | 1 | Support, Pipe |
| 10 | 850-0045 | 4 | Washer, Lock (5/16") | 28 | 130-0828 | 1 | Bracket, Support |
| 11 | 526-0115 | 4 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) | 29 | 505-0084 | 2 | Nipple (3/4 x 2-1/2") |
| 12 | 130-0488 | 1 | Clamp, Pipe | 30 | 505-0132 | 1 | Elbow, 90° (3/4") |
| 13 | 505-0424 | 1 | Nipple, Pipe (1-1/2 x 16-1/2") | 31 | 800-0023 | 2 | Screw, Cap - Hex Head (1/4-20 x 1-3/8") |
| 14 | 505-0011 | 1 | Elbow, Street (1/4") | 32 | 862-0001 | 2 | Nut, Hex (1/4-20") |
| 15 | 505-0010 | 2 | Nipple, Half (1/4 x 1") | 33 | 850-0040 | 2 | Washer, Lock |
| 16 | 505-0426 | 1 | Bushing, Reducer (1-1/2 x 1/4") | 34 | 504-0046 | 1 | Valve, Globe |
| 17 | 503-0032 | 2 | Clamp, Hose | 35 | 110-0810 | 1 | Bracket & Nipple |
| 18 | | 1 | Hose, Order 16-1/4" of Bulk Hose #503-0110 | 36 | 307-0835 | 1 | Valve, Solenoid |

WATER COOLED EXHAUST MANIFOLD (RADIATOR COOLED) INSTALLATION

NOTE: See separate group for early models. Can be identified by exhaust manifolds. This installation has ONAN cast into the manifolds

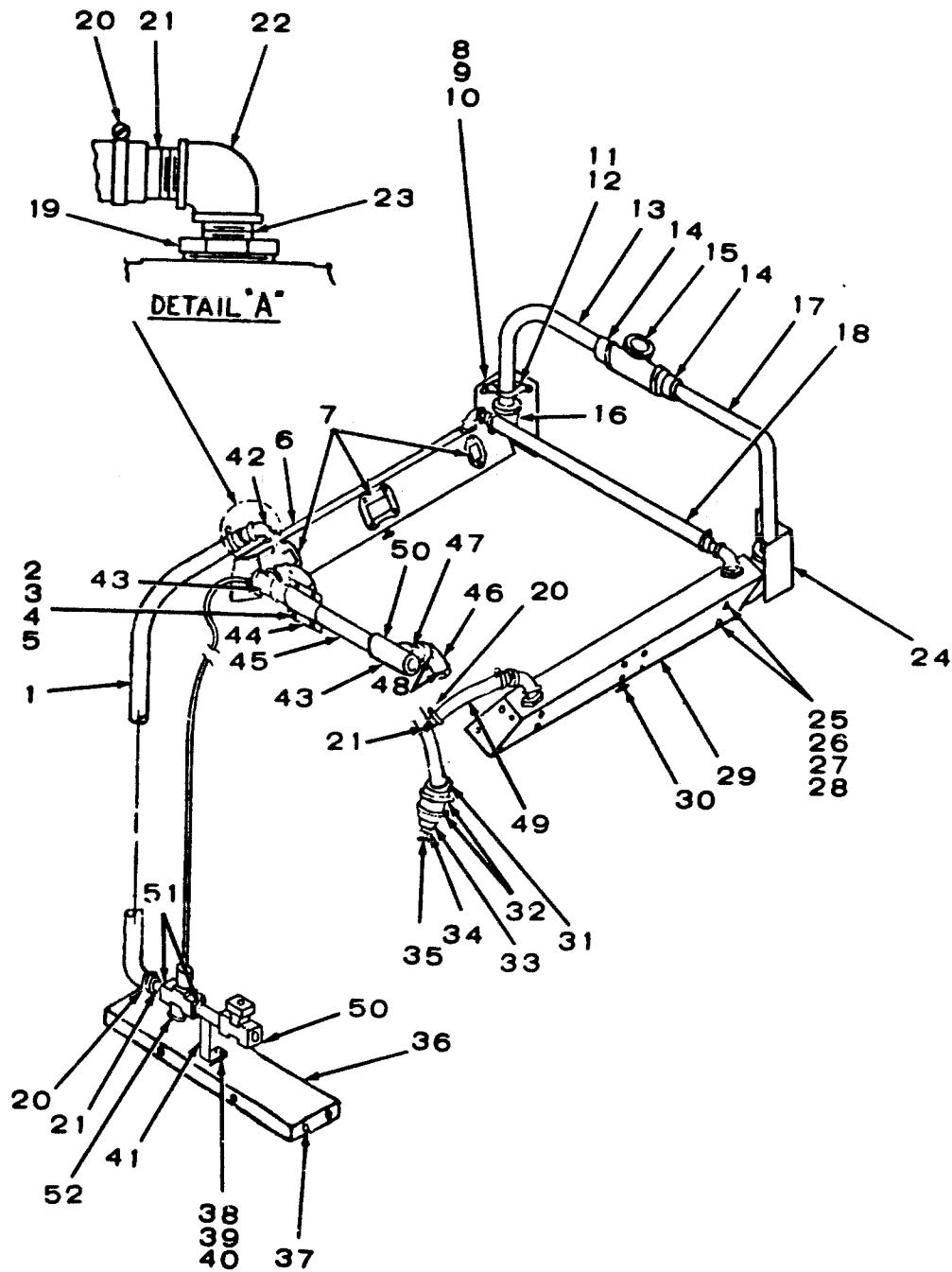


| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|--|-------------|-------------|--------------|---|
| 1 | 504-0028 | 1 | Cock, Drain | 20 | 503-0189 | 9 | Clamp, Hose |
| 2 | 154-1453 | 1 | Manifold Assembly (LH) | 21 | 148-0274 | 1 | Clamp, Hose |
| 3 | 870-0053 | 8 | Nut, Hex (#10-32) | 22 | | 1 | Hose, Order 30" of Bulk Hose #503-0191 |
| 4 | 813-0102 | 8 | Screw, Machine - Roundhead (#10-32 x 5/8") | 23 | 505-0019 | 1 | Bushing, Reducer (1/2 x 3/8") |
| 5 | 850-0030 | 8 | Washer, Lock - Spring (#10) | 24 | 505-0248 | 1 | Elbow, Street (45° x 1/2") |
| 6 | 155-1048 | 1 | Tube, Exhaust Assembly | 25 | 505-0100 | 8 | Nipple, Close (1/2") |
| 7 | 155-0661 | 2 | Band, Shield Mounting | 26 | 503-0191 | 1 | Hose (13-1/2") |
| 8 | 155-0660 | 2 | Bracket, Exhaust Shield Mounting | 27 | 505-0216 | 2 | Elbow, Street (2-1/2") |
| 9 | | 2 | Hose, Order 8" of Bulk Hose #503-0191 | 28 | 520-0110 | 8 | Stud (3/8-24 x 4-1/2") |
| 10 | 155-0615 | 1 | Nipple, Exhaust Tube | 29 | 520-0755 | 8 | Stud (3/8-24 x 5-1/2") |
| 11 | 505-0373 | 1 | Tee, Reducing (2-1/2 x 2-1/2 x 3") | 30 | 850-0050 | 16 | Washer, Lock - Spring (3/8") |
| 12 | 155-0647 | 1 | Tube, Exhaust Assembly | 31 | 104-0091 | 16 | Nut, Hex (3/8-24") |
| 13 | 130-0745 | 1 | Water Line, Manifold Drain | 32 | 155-0659 | 2 | Shield, Exhaust Header |
| 14 | 505-0185 | 8 | Nipple, Half (1/2") | 33 | 154-0592 | 2 | Gasket Set, Manifold |
| 15 | 505-0040 | 5 | Elbow (1/2" x 90°) | 800-0026 | | 2 | *Screw, Cap - Hex Head (5/16-18 x 3/4") |
| 16 | 505-0399 | 4 | Bushing, Reducer (1-1/2 x 1/2") | 850-0045 | | 2 | Coil Mounting |
| 17 | 154-1452 | 1 | Manifold Assembly (RH) | 505-0185 | | 1 | *Washer, Lock - Spring (5/16") |
| 18 | 504-0005 | 2 | Cock, Drain | 503-0191 | | 6 | Coil Mounting |
| 19 | 505-0108 | 3 | Tee (1/2") | | | | *Nipple, Half (1/2" x 1-1/2") |
| | | | | | | | *Hose, Rubber (3/4 x 1-1/8") |

* - Not shown in illustration.

CITY WATER COOLED WITH WATER COOLED EXHAUST AND MARSH REGULATOR (HOUSED AND UNHOUSED MODELS) INSTALLATION -

NOTE: See separate groups for early models. Can be identified by exhaust manifolds. This installation has ONAN cast on the manifolds.



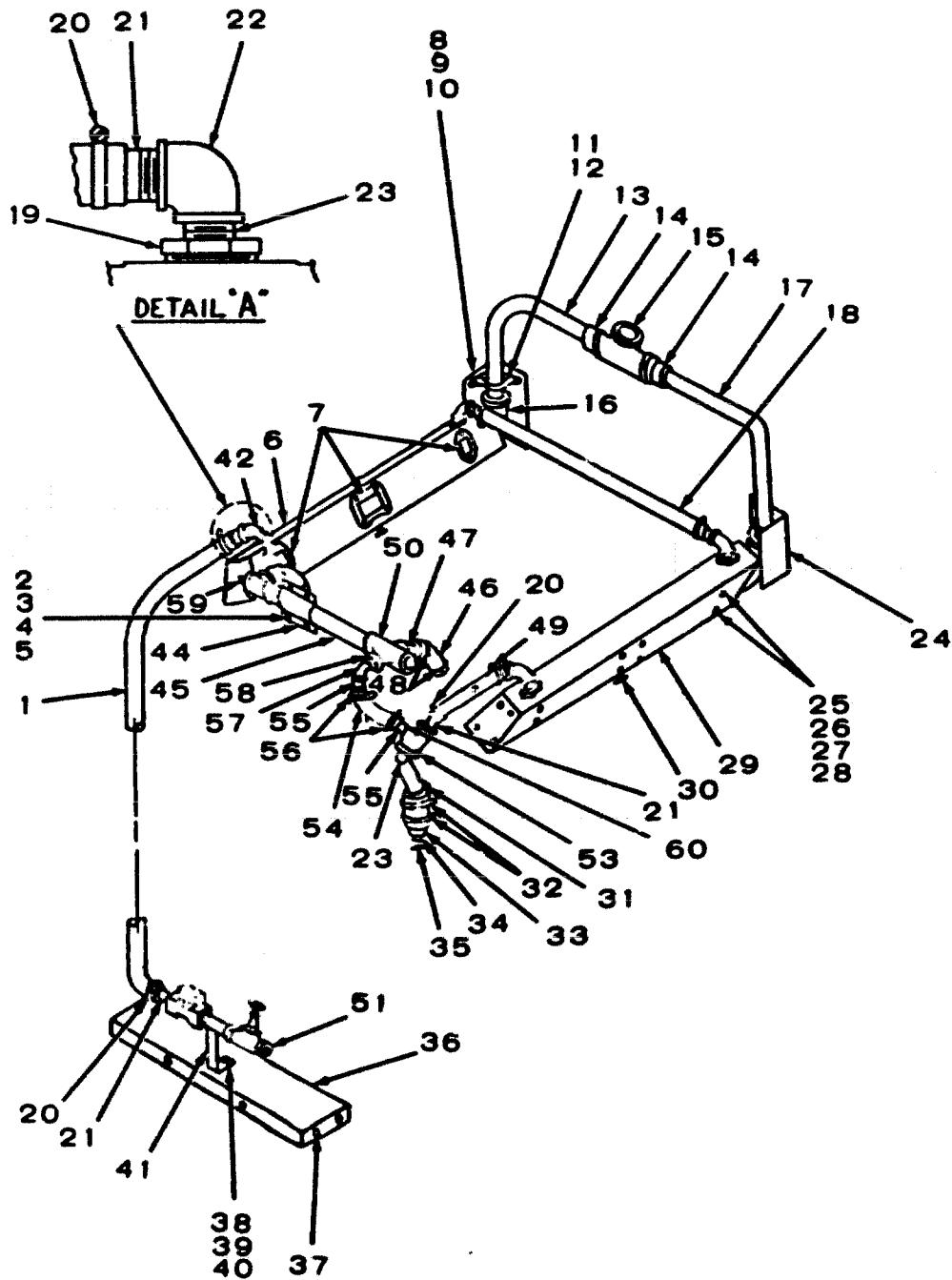
CITY WATER COOLED WITH WATER COOLED EXHAUST AND MARSH REGULATOR (HOUSED AND UNHOUSED MODELS) INSTALLATION -

NOTE: See separate groups for early models. Can be identified by exhaust manifolds. This installation has ONAN cast on the manifolds.

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|--------------|---|
| 1 | | 1. | Hose (Order 23" of Bulk Hose 503-0386) | 28 | 104-0091 | 16 | Nut, Hex (3/8-24) |
| 2 | 800-0028 | 4 | Screw, Cap - Hex Head (5/16-18 x 1") | 29 | 154-1452 | 1 | Manifold - R/H |
| 3 | 526-0115 | 4 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) | 30 | 504-0005 | 2 | Cock, Drain |
| 4 | 850-0045 | 4 | Washer, Lock - Spring (5/16") | 31 | | 1 | Hose (Order 3" of Bulk Hose 503-0357) |
| 5 | 862-0002 | 4 | Nut, Hex (5/16-18) | 32 | 503-0354 | 2 | Clamp, Hose |
| 6 | 154-1453 | 1 | Manifold - L/H | 33 | 130-0452 | 1 | Fitting, Water Inlet |
| 7 | 154-0592 | 2 | Gasket, Manifold | 34 | 505-0131 | 1 | Bushing, Reducer |
| 8 | 813-0102 | 10 | Screw, Cap - Hex Head (10-32 x 5/8") | 35 | 504-0028 | 1 | Cock, Drain |
| 9 | 850-0030 | 10 | Washer, Lock - Spring (#10) | 36 | 130-0499 | 1 | Bracket, Heat Exchanger |
| 10 | 870-0053 | 8 | Nut, Hex (#10-32) | 37 | 821-0014 | 6 | Screw, Cap - Locking Head (5/16-18 x 1/2") |
| 11 | 155-0660 | 2 | Bracket, Exhaust Shield | 38 | 800-0007 | 2 | Screw, Cap - Hex Head (1/4-20 x 1") |
| 12 | 155-0661 | 2 | Band, Shield Mounting | 39 | 850-0040 | 2 | Washer, Lock - Spring (1/4") |
| 13 | 155-1048 | 1 | Tube, Exhaust | 40 | 862-0001 | 2 | Nut, Hex (1/4-20) |
| 14 | 155-0615 | 1 | Nipple, Half | 41 | 110-0526 | 1 | Nipple and Bracket |
| 15 | 505-0373 | 1 | Tee, Reducer | 42 | 505-0474 | 1 | Nipple, Half |
| 16 | 505-0216 | 2 | Elbow, Street | 43 | 505-0317 | 1 | Tee |
| 17 | 155-1047 | 1 | Tube, Exhaust | 44 | 130-0488 | 1 | Support, Pipe |
| 18 | | 1 | Hose (Order 38" of Bulk Hose 503-0386) | 45 | 505-0424 | 1 | Nipple |
| 19 | 505-0399 | 4 | Bushing, Reducer | 46 | 503-0364 | 2 | Hose |
| 20 | 503-0189 | 6 | Clamp, Hose | 47 | 505-0272 | 1 | Nipple, Half |
| 21 | 505-0185 | 6 | Nipple, Half | 48 | 503-0365 | 4 | Clamp, Hose |
| 22 | 505-0040 | 4 | Elbow | 49 | | 1 | Hose (Order 11" of Bulk Hose 503-0386) |
| 23 | 505-0100 | 5 | Nipple, Close | 50 | 307-0833 | 1 | Valve, Solenoid |
| 24 | 155-0659 | 2 | Shield, Exhaust Header | 51 | 505-0021 | 2 | Bushing, Reducer |
| 25 | 520-0755 | 8 | Stud (3/8-24 x 5-3/4") | 52 | 309-0241 | 1 | Valve, Water Temperature Control |
| 26 | 520-0110 | 8 | Stud (3/8-24 x 4-1/2") | 800-0025 | | 2 | Screw, Cap - Hex Head - Coil Mounting (5/16-18 x 3/4") |
| 27 | 850-0050 | 16 | Washer, Lock - Spring (3/8") | | | | |

CITY WATER COOLED WITH WATER COOLED EXHAUST MANIFOLD (HOUSED AND UNHOUSED MODELS) INSTALLATION

NOTE: See separate groups for early models. Can be identified by exhaust manifolds. This installation has ONAN cast into the manifold.



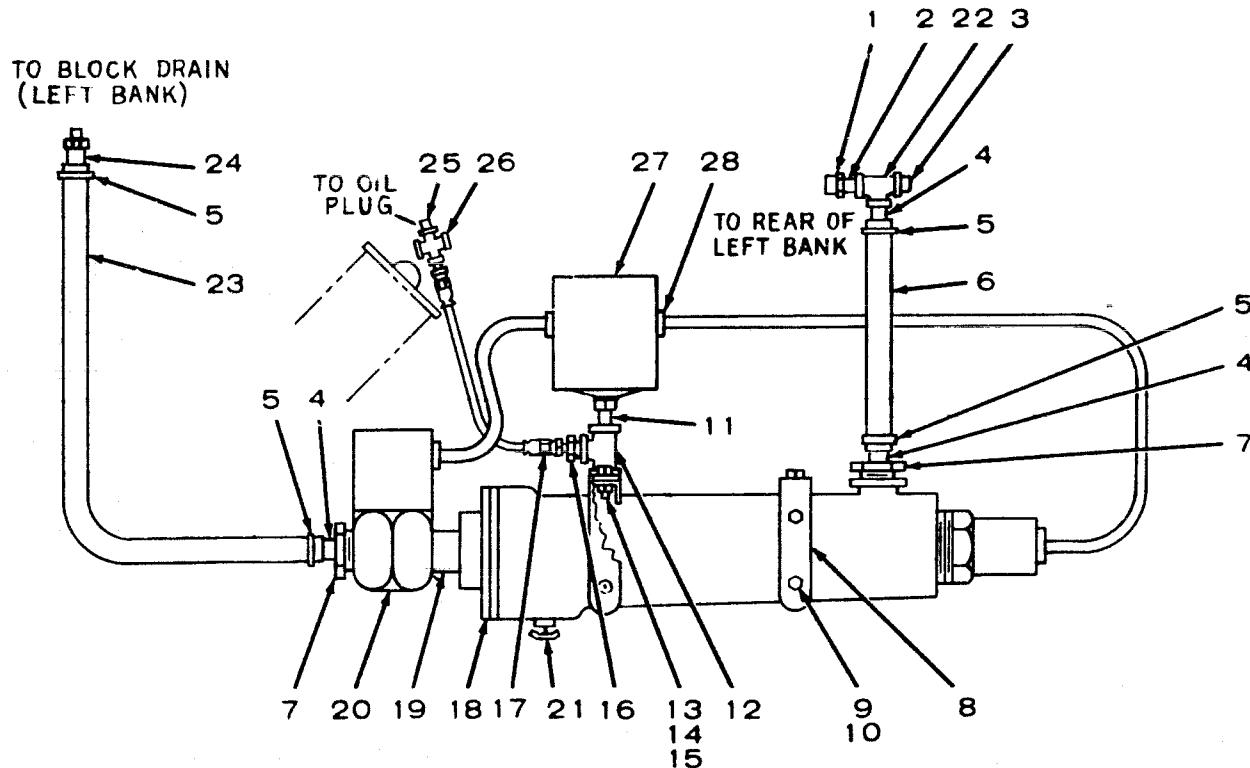
**CITY WATER COOLED WITH WATER COOLED EXHAUST
MANIFOLD (HOUSED AND UNHOUSED MODELS)
INSTALLATION**

NOTE: See separate groups for early models. Can be identified by exhaust manifolds. This installation has ONAN cast into the manifold.

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION | REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|-------------|-------------|---|---|
| 1 | | 1 | Hose (Order 23" of Bulk Hose 503-0386) | 34 | 505-0131 | 1 | Bushing, Reducer |
| 2 | 800-0028 | 4 | Screw, Cap - Hex Head (5/16-18 x 1") | 35 | 504-0028 | 1 | Cock, Drain |
| 3 | 526-0115 | 4 | Washer, Flat (11/32" ID x 11/16" OD x 1/16" Thk) | 36 | 130-0499 | 1 | Bracket, Heat Exchanger |
| 4 | 850-0045 | 4 | Washer, Lock - Spring (5/16") | 37 | 821-0014 | 6 | Screw, Cap - Locking Head (5/16-18 x 1/2") |
| 5 | 862-0002 | 4 | Nut, Hex (5/16-18) | 38 | 800-0007 | 2 | Screw, Cap - Hex Head (1/4-20 x 1") |
| 6 | 154-1453 | 1 | Manifold - L/H | 39 | 850-0040 | 2 | Washer, Lock - Spring (1/4") |
| 7 | 154-0592 | 2 | Gasket, Manifold | 40 | 862-0001 | 2 | Nut, Hex (1/4-20) |
| 8 | 813-0102 | 10 | Screw, Cap - Hex Head (10-32 x 5/8") | 41 | 110-0526 | 1 | Nipple and Bracket |
| 9 | 850-0030 | 10 | Washer, Lock - Spring (#10) | 42 | 505-0474 | 1 | Nipple, Half |
| 10 | 870-0053 | 8 | Nut, Hex (#10-32) | 43 | 505-0317 | 1 | Tee |
| 11 | 155-0660 | 2 | Bracket, Exhaust Shield | 44 | 130-0488 | 1 | Support, Pipe |
| 12 | 155-0661 | 2 | Band, Shield Mounting | 45 | 505-0424 | 1 | Nipple |
| 13 | 155-1048 | 1 | Tube, Exhaust | 46 | 503-0364 | 2 | Hose |
| 14 | 155-0615 | 1 | Nipple, Half | 47 | 505-0272 | 1 | Nipple, Half |
| 15 | 505-0373 | 1 | Tee, Reducer | 48 | 503-0365 | 4 | Clamp, Hose |
| 16 | 505-0216 | 2 | Elbow, Street | 49 | | 1 | Hose (Order 11" of Bulk Hose 503-0386) |
| 17 | 155-1047 | 1 | Tube, Exhaust | 50 | 505-0398 | 1 | Tee, Side Outlet |
| 18 | | 1 | Hose (Order 38" of Bulk Hose 503-0386) | 51 | 504-0019 | 1 | Valve, Lockshield |
| 19 | 505-0399 | 4 | Bushing, Reducer | 52 | 505-0108 | 1 | Tee |
| 20 | 503-0189 | 6 | Clamp, Hose | 53 | | 1 | Hose (Order 9" of Bulk Hose 503-0110) |
| 21 | 505-0185 | 6 | Nipple, Half | 54 | 505-0010 | 2 | Nipple, Half |
| 22 | 505-0040 | 4 | Elbow | 55 | 503-0032 | 2 | Clamp, Hose |
| 23 | 505-0100 | 5 | Nipple, Close | 56 | 505-0011 | 1 | Elbow, Street |
| 24 | 155-0659 | 2 | Shield, Exhaust Header | 57 | 505-0426 | 1 | Bushing, Reducer |
| 25 | 520-0755 | 8 | Stud (3/8-24 x 5-3/4") | 58 | 505-0402 | 1 | Plug |
| 26 | 520-0110 | 8 | Stud (3/8-24 x 4-1/2") | 59 | 505-0018 | 1 | Bushing, Reducer |
| 27 | 850-0050 | 16 | Washer, Lock - Spring (3/8") | 130-0454 | | 1 | *Guard, Belt |
| 28 | 104-0091 | 16 | Nut, Hex (3/8-24) | 130-0455 | | 1 | *Bracket, Guard Mounting |
| 29 | 154-1452 | 1 | Manifold - R/H | 800-0026 | 2 | *Screw, Cap - Hex Head - Oil Mounting (5/16-18 x 3/4") | |
| 30 | 504-0005 | 2 | Cock, Drain | 821-0004 | 2 | *Screw, Cap - Locking Head (#10-32 x 5/16") | |
| 31 | | 1 | Hose (Order 3" of Bulk Hose 503-0357) | | | | |
| 32 | 503-0354 | 2 | Clamp, Hose | | | | |
| 33 | 130-0452 | 1 | Fitting, Water Inlet | | | | |

* - Parts Not Shown in Illustration.

**OPTIONAL
WATER JACKET HEATER INSTALLATION**



| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|----------|----------|-----------|--|
| 1 | 505-0019 | 1 | Bushing, Reducer |
| 2 | 505-0101 | 1 | Nipple, Close |
| 3 | 505-0110 | 1 | Plug, Square Head |
| 4 | 505-0135 | 3 | Nipple, Half |
| 5 | 503-0183 | 4 | Clamp, Hose |
| 6 | 503-0387 | 1 | Hose |
| 7 | 505-0455 | 2 | Bushing, Reducer |
| 8 | 130-1192 | 2 | Bracket, Heater Mounting |
| 9 | 821-0016 | 4 | Screw, Cap - Self Locking (5/16-18 x 3/4") |
| 10 | 870-0257 | 4 | Nut, Hex - Self Locking (5/16-18) |
| 11 | 505-0009 | 1 | Nipple, Close |
| 12 | 333-0142 | 1 | Support, Pressure Switch |
| 13 | 800-0007 | 4 | Screw, Cap - Hex Head (1/4-20 x 1") |
| 14 | 850-0040 | 4 | Washer, Lock - Spring (1/4") |
| 15 | 862-0001 | 4 | Nut, Hex (1/4-20) |
| 16 | 505-0007 | 1 | Bushing, Reducer |
| 17 | 501-0227 | 1 | Line, Flexible |
| 18 | 333-0156 | 1 | Heater, Engine (2000 Watt) |
| 19 | 505-0004 | 1 | Nipple, Close |
| 20 | 309-0304 | 1 | Switch, Thermostat |
| 21 | 504-0003 | 1 | Cock, Drain |
| 22 | 505-0060 | 1 | Tee, Pipe |
| 23 | 503-0565 | 1 | Hose |
| 24 | 502-0613 | 1 | Connector, Hose |
| 25 | 505-0104 | 1 | Nipple, Short |
| 26 | 505-0763 | 1 | Cross, Pipe |
| 27 | 309-0307 | 1 | Switch, Oil Pressure |
| 28 | 331-0027 | 2 | Connector - Romex |
| | 323-0957 | 2 | Connector, Wire Nut (Not Illustrated) |
| | 332-0149 | 2 | Terminal (Not Illustrated) |

**SPECIAL PARTS LIST
FOR KR SERIES PENNSYLVANIA APPROVED
GENERATING MODELS**

Refer first to this list for Pennsylvania Approved Models. Parts not in this list refer to the main parts list. When referring to the main parts list, reference to Spec letter or voltage also applies to these models.

These models are recognized by the numbers 30 (Gasoline Fuel), 31 (Gaseous Fuel), or 131 (Liquid Petroleum Fuel) appearing in the model. These numbers may appear just before or after the diagonal line (/). The number appearing after the diagonal line signifies a standard Pennsylvania Approved model.

REPLACEMENT ENGINE

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 100-0870 | | 1 | International Harvester Co. Model UV-549 |
| 100-0855 | | 1 | International Harvester Co. Model UV-549-LPG Fuel Only |

NOTE: See Standard parts list for general description.

**CONTROL GROUP
(ENGINE INSTRUMENTS PORTION)**

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|---|
| 18 | 300-0730 | 1 | Monitor, Engine Control (See Separate Group for Components) |

CONTROL GROUP (AC OUTPUT PORTION)

| REF. NO. | PART NO. | QTY. USED | PART DESCRIPTION |
|-------------|-------------|--------------|------------------------------|
| | 320-0307 | 1 | Lock, Circuit Breaker Handle |